2021 Salary Guide
TECHNOLOGY & ENGINEERING
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Employees call for greater workplace flexibility in the wake of Covid-19.

- Mix of office-based and remote working is the optimal model (45% home, 51% office)
- Want more flexibility in how and where they work
- Of employees believe it’s time to revisit the length of the working week

Statistics from Resetting Normal: Defining The New Era of Work
NEW SKILLS FOR A NEW ERA

Now more than ever, employees and employers see the need for additional training and development. Increased remote work has forced many teams to quickly embrace and enhance new digital skills, but there is a need to constantly upskill as the world of work continues to evolve. This is especially prevalent in the tech industry, where the skills gap continues to widen.

65% feel their digital skills have improved as a consequence of remote working

78% of people want more digital upskilling

29% would change jobs within the same sector if there was an opportunity to learn new skills.

The upskilling that employees want:

- 78% Digital Skills
- 77% Using company platforms and systems
- 75% Managing remote teams
- 69% Soft skills development

Statistics from Resetting Normal: Defining The New Era of Work
LEADERSHIP REINVENTED

Expectations for leadership have risen and emotional intelligence is the new gold standard. Employees now want to see managers do more to ensure the workforce remains motivated, collaborative, and positive.

82% of employees want their managers to demonstrate a leadership style focused on empathy and a supportive attitude.

Key Elements in the workplace:

- Job security: 87%
- Work/life balance: 87%
- Trusted to get the job done: 86%
- Good relationship with manager: 83%
- Maintain physical health: 81%

Statistics from Resetting Normal: Defining The New Era of Work
ABOUT THE SALARIES IN THIS GUIDE

Our 2021 Information Technology & Engineering Salary Guide gives you the intelligence you need to outperform your competition in the race to attract and retain leading IT and engineering professionals.

Our up-to-date salary figures are based on research conducted by EMSI (Economic Modeling Specialists International), which allows us to provide the most accurate salary and compensation data. The data is thoroughly vetted and verified, created from over 40 million individual compensation observations firmly anchored in robust government data sources.

Additionally, each office in the nationwide Modis branch network has reviewed the data. Based on that review, some modifications have been made to ensure localized accuracy.

**Base salary**

**10TH PERCENTILE** - Only 10% of the national workforce — across all industries and company sizes — is paid below this figure.

**MEDIAN** - Only 50% of the national workforce — across all industries and company sizes — is paid below or above this figure.

**90TH PERCENTILE** - Only 10% of the national workforce — across all industries and company sizes — is paid above this figure.

**Median base salary by experience level**

**LOW EXPERIENCE** - The median base salary for the national workforce with 0-1 years of experience.

**AVERAGE EXPERIENCE** - The median base salary for the national workforce with 2-10 years of experience.

**HIGH EXPERIENCE** - The median base salary for the national workforce with more than 10 years of experience.

The enclosed compensation information reflects the salaries observed nationwide. Connect with your local Modis Representative to get specific market data.
We realize that salaries in your city may not be the same as salaries in other areas of the country. That’s why we’ve provided variances for all of the key markets throughout the U.S. You can use a variance to calculate the most accurate salary ranges for your specific job market. Take the median base salary for the position you are researching and multiply it by the variance.*

Here’s an example: A Business Analyst has a median base salary of $70,221 and the company is based in San Diego, CA, which has a variance of 110.12%. Here is the calculation you would use: $70,221 x 110.12% = $77,327

The salary for San Diego would be $77,327.

VARIANCES FOR SPECIFIC JOB MARKETS

<table>
<thead>
<tr>
<th>City</th>
<th>Local Variance</th>
<th>City</th>
<th>Local Variance</th>
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<td>107.6%</td>
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<tr>
<td>Cedar Rapids</td>
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<td>New York</td>
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<tr>
<td>Charlotte</td>
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<td>Newark</td>
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<td>Omaha</td>
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<tr>
<td>Chicago</td>
<td>111.3%</td>
<td>Orlando</td>
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<tr>
<td>Cincinnati</td>
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<td>Rochester</td>
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<td>Fort Worth</td>
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<td>San Diego</td>
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<td>San Francisco</td>
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<td>Houston</td>
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<td>Indianapolis</td>
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<td>Irvine</td>
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<td>Tampa</td>
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<td>Jacksonville</td>
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<td>Walnut Creek</td>
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<td>93.7%</td>
<td>Washington DC</td>
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<tr>
<td>Knoxville</td>
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*National variances are based on salary averages. Increases and decreases in demand for certain positions may impact this percentage.
<table>
<thead>
<tr>
<th></th>
<th>10th Percentile</th>
<th>Median</th>
<th>90th Percentile</th>
<th>Low</th>
<th>Average</th>
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<td>103,894</td>
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<td>96,625</td>
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<tr>
<td>Electrical Engineer</td>
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<td>84,685</td>
<td>131,920</td>
<td>70,038</td>
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<td>112,384</td>
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<tr>
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<td>109,675</td>
<td>62,086</td>
<td>80,158</td>
<td>93,133</td>
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<tr>
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<td>58,085</td>
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<td>126,730</td>
<td>66,531</td>
<td>76,850</td>
<td>102,142</td>
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<td>62,881</td>
<td>74,479</td>
<td>103,097</td>
<td>73,341</td>
<td>79,643</td>
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<td>EMBEDDED SYSTEMS</td>
<td>BASE SALARY</td>
<td>MEDIAN BASE SALARY BY EXPERIENCE LEVEL</td>
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<td>10TH PERCENTILE</td>
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2021 Salary Guide
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<tr>
<th>ENERGY</th>
<th>BASE SALARY</th>
<th>MEDIAN BASE SALARY BY EXPERIENCE LEVEL</th>
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<td>10TH PERCENTILE</td>
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<td>Median</td>
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<td>Technical Writer</td>
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</table>

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<th>AVERAGE</th>
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## ENGINEERING

### BASE SALARY MEDIAN BASE SALARY BY EXPERIENCE LEVEL

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<th>Experience Level</th>
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<th>MEDIAN</th>
<th>90TH PERCENTILE</th>
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<th>AVERAGE</th>
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<td>37,008</td>
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**The Future is Flexible**
**New Skills for a New Era**
**Leadership Reinvented**
**About the Salaries in this Guide**
**Variances for Specific Job Markets**

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**14 Agile**
**14 Analyst**
**15 Database Development, Administration & BI**
**16 Enterprise Systems Analyst & Integration**
**16 Health IT**
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**63 About Modis**
**64 Benefits of Working with Modis**
## TECHNOLOGY

### BASE SALARY

<table>
<thead>
<tr>
<th>Technology</th>
<th>10th Percentile</th>
<th>Median</th>
<th>90th Percentile</th>
<th>Low</th>
<th>Average</th>
<th>High</th>
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</thead>
</table>
### AGILE

- **Agile Coach**
  - Median: 128,450
  - 90th Percentile: 176,661
  - Low: 101,068
  - Average: 111,331
  - High: 136,960

- **DevOps Engineer**
  - Median: 117,184
  - 90th Percentile: 160,461
  - Low: 89,858
  - Average: 115,238
  - High: 153,238

- **Product Owner**
  - Median: 107,710
  - 90th Percentile: 160,660
  - Low: 79,323
  - Average: 111,745
  - High: 141,021

- **RTE/Release Train Engineer**
  - Median: 118,013
  - 90th Percentile: 185,604
  - Low: 76,543
  - Average: 128,257
  - High: 169,550

- **Scrum Master**
  - Median: 112,337
  - 90th Percentile: 158,130
  - Low: 77,002
  - Average: 105,847
  - High: 120,729

- **Value Stream Engineer**
  - Median: 104,536
  - 90th Percentile: 135,681
  - Low: 83,397
  - Average: 101,305
  - High: 111,569

### ANALYST

- **Applications Systems Analyst**
  - Median: 84,658
  - 90th Percentile: 127,201
  - Low: 65,823
  - Average: 75,270
  - High: 84,658

- **Business Analyst**
  - Median: 87,984
  - 90th Percentile: 118,086
  - Low: 67,685
  - Average: 84,623
  - High: 108,658

- **Business Process Consultant**
  - Median: 100,655
  - 90th Percentile: 122,741
  - Low: 82,268
  - Average: 90,564
  - High: 101,622

- **Change Management Specialist**
  - Median: 96,360
  - 90th Percentile: 175,678
  - Low: 86,730
  - Average: 96,552
  - High: 135,810

- **Data Analyst**
  - Median: 78,275
  - 90th Percentile: 127,175
  - Low: 57,017
  - Average: 78,941
  - High: 100,199

---

### Additional Sections

- **The Future is Flexible**
- **New Skills for a New Era**
- **Leadership Reinvented**
- **About the Salaries in this Guide**
- **Variance for Specific Job Markets**
- **Engineering Salary Data**
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- **Database Development, Administration & BI**
- **Enterprise Systems Analyst & Integration**
- **Health IT**
- **Executive Leadership**
- **Management**
- **Project Management**
- **Mobile Development**
- **Network/Systems Design & Administration**
- **Programming/Software Engineering**
- **Security**
- **Technical Support**
- **Technical Writing**
- **Quality Assurance**
- **Web Development and Administration**
- **Job Descriptions**
- **Benefits of Working with Modis**

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<tr>
<th>DATABASE DEVELOPMENT, ADMINISTRATION &amp; BI</th>
<th>10TH PERCENTILE</th>
<th>MEDIAN</th>
<th>90TH PERCENTILE</th>
<th>LOW</th>
<th>AVERAGE</th>
<th>HIGH</th>
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## TECHNOLOGY

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**MEDIAN BASE SALARY BY EXPERIENCE LEVEL**

<table>
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<th>Low</th>
<th>Average</th>
<th>High</th>
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### EXECUTIVE LEADERSHIP

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### NETWORK/SYSTEMS DESIGN AND ADMINISTRATION

- Citrix Administrator: 60,783, 99,009, 139,976, 73,803, 91,179, 112,028
- Cloud Administrator: 83,415, 112,404, 131,744, 96,786, 109,595, 114,146
- Cloud Developer: 103,381, 128,181, 191,381, 113,682, 124,047, 129,190
- Linux Administrator: 74,168, 108,031, 128,629, 76,572, 100,075, 118,490
- Mail Server Administrator: 44,824, 80,313, 88,965, 57,478, 67,597, 83,692
- Network Administrator: 47,693, 76,091, 97,213, 59,604, 66,058, 77,925
- Network Control Technician: 39,203, 59,182, 87,499, 41,559, 48,029, 74,507
- Network Engineer: 53,509, 91,001, 134,452, 84,547, 92,902, 98,491
- Storage Management Specialist: 49,041, 77,179, 90,924, 59,498, 65,407, 73,093
- System Engineer: 68,123, 89,609, 123,209, 72,854, 90,756, 112,009
- Systems Administrator: 51,927, 70,652, 99,726, 67,511, 74,822, 85,189
- Systems Architect: 87,388, 128,295, 192,417, 97,643, 113,102, 130,350
- Telecommunications Analyst: 57,089, 68,930, 88,952, 59,058, 70,914, 85,661
- Telecommunications Technician: 33,565, 52,195, 65,847, 38,308, 56,915, 63,578
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<td>Software Support Engineer</td>
<td>64,265</td>
<td>77,727</td>
<td>109,109</td>
<td>65,552</td>
</tr>
</tbody>
</table>

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### TECHNOLOGY SALARY MEDIAN BASE SALARY BY EXPERIENCE LEVEL

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>10TH PERCENTILE</th>
<th>MEDIAN</th>
<th>90TH PERCENTILE</th>
<th>LOW</th>
<th>AVERAGE</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECURITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cybersecurity Analyst</td>
<td>67,878</td>
<td>94,467</td>
<td>126,381</td>
<td>73,087</td>
<td>89,792</td>
<td>111,046</td>
</tr>
<tr>
<td>Cybersecurity Architect</td>
<td>92,126</td>
<td>126,072</td>
<td>155,825</td>
<td>106,648</td>
<td>116,391</td>
<td>127,047</td>
</tr>
<tr>
<td>Data Security Analyst</td>
<td>70,047</td>
<td>94,529</td>
<td>129,617</td>
<td>70,121</td>
<td>95,752</td>
<td>127,824</td>
</tr>
<tr>
<td>Governance Risk &amp; Compliance Auditor</td>
<td>50,113</td>
<td>62,416</td>
<td>79,861</td>
<td>50,339</td>
<td>57,488</td>
<td>73,896</td>
</tr>
<tr>
<td>Information Security Administrator</td>
<td>59,064</td>
<td>87,082</td>
<td>125,661</td>
<td>59,697</td>
<td>82,858</td>
<td>114,239</td>
</tr>
<tr>
<td>Information Security Analyst</td>
<td>63,625</td>
<td>103,040</td>
<td>159,008</td>
<td>78,482</td>
<td>108,391</td>
<td>137,834</td>
</tr>
<tr>
<td>Information Security Director</td>
<td>100,985</td>
<td>132,876</td>
<td>174,333</td>
<td>105,600</td>
<td>134,473</td>
<td>162,174</td>
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<tr>
<td>Information Security Engineer</td>
<td>87,850</td>
<td>114,462</td>
<td>134,246</td>
<td>88,557</td>
<td>112,527</td>
<td>132,062</td>
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<tr>
<td>Information Security Risk Analyst</td>
<td>70,981</td>
<td>99,735</td>
<td>121,763</td>
<td>73,774</td>
<td>101,060</td>
<td>119,609</td>
</tr>
<tr>
<td>Information Security Supervisor</td>
<td>68,659</td>
<td>104,098</td>
<td>137,882</td>
<td>69,652</td>
<td>101,905</td>
<td>132,991</td>
</tr>
<tr>
<td>Systems/Application Security Analyst</td>
<td>77,243</td>
<td>99,954</td>
<td>119,445</td>
<td>78,964</td>
<td>101,235</td>
<td>118,675</td>
</tr>
</tbody>
</table>
### TECHNOLOGY

<table>
<thead>
<tr>
<th>TECHNICAL SUPPORT</th>
<th>BASE SALARY</th>
<th>MEDIAN BASE SALARY BY EXPERIENCE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10TH PERCENTILE</td>
<td>MEDIAN</td>
</tr>
<tr>
<td>Computer Operator</td>
<td>27,124</td>
<td>55,269</td>
</tr>
<tr>
<td>Help Desk Supervisor</td>
<td>43,168</td>
<td>66,007</td>
</tr>
<tr>
<td>Help Desk Support</td>
<td>36,185</td>
<td>44,549</td>
</tr>
<tr>
<td>Help Desk Support Assistant</td>
<td>33,941</td>
<td>40,754</td>
</tr>
<tr>
<td>LAN Support</td>
<td>49,171</td>
<td>65,010</td>
</tr>
<tr>
<td>LAN/WAN Administrator</td>
<td>59,359</td>
<td>82,142</td>
</tr>
<tr>
<td>PC Maintenance Technician</td>
<td>35,125</td>
<td>48,114</td>
</tr>
<tr>
<td>Technical Support Analyst</td>
<td>44,236</td>
<td>69,857</td>
</tr>
<tr>
<td>TECHNICAL WRITING</td>
<td>BASE SALARY</td>
<td>MEDIAN BASE SALARY BY EXPERIENCE LEVEL</td>
</tr>
<tr>
<td>Documentation Specialist</td>
<td>40,720</td>
<td>59,299</td>
</tr>
<tr>
<td>Instructional Technology Specialist</td>
<td>48,604</td>
<td>68,036</td>
</tr>
<tr>
<td>Technical Trainer</td>
<td>42,260</td>
<td>67,330</td>
</tr>
<tr>
<td>Technical Writer</td>
<td>44,915</td>
<td>71,095</td>
</tr>
<tr>
<td>QUALITY ASSURANCE</td>
<td>BASE SALARY</td>
<td>MEDIAN BASE SALARY BY EXPERIENCE LEVEL</td>
</tr>
<tr>
<td>Automation Quality Assurance Tester</td>
<td>70,708</td>
<td>100,895</td>
</tr>
<tr>
<td>Performance Test Engineer</td>
<td>90,000</td>
<td>105,798</td>
</tr>
<tr>
<td>Quality Assurance Specialist</td>
<td>42,894</td>
<td>68,811</td>
</tr>
<tr>
<td>Release Engineer</td>
<td>80,814</td>
<td>113,459</td>
</tr>
<tr>
<td>Software Quality Assurance Analyst</td>
<td>53,944</td>
<td>72,186</td>
</tr>
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</table>
# Technology Base Salary Median

<table>
<thead>
<tr>
<th>Job Title</th>
<th>10th Percentile</th>
<th>Median</th>
<th>90th Percentile</th>
<th>Low</th>
<th>Average</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web Development and Administration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content Engineer</td>
<td>48,584</td>
<td>91,492</td>
<td>130,694</td>
<td>49,299</td>
<td>82,167</td>
<td>120,349</td>
</tr>
<tr>
<td>Content Manager</td>
<td>54,010</td>
<td>72,173</td>
<td>90,100</td>
<td>56,340</td>
<td>71,275</td>
<td>85,989</td>
</tr>
<tr>
<td>Content Specialist</td>
<td>35,143</td>
<td>57,087</td>
<td>82,585</td>
<td>43,909</td>
<td>57,087</td>
<td>61,470</td>
</tr>
<tr>
<td>Front End Developer</td>
<td>72,168</td>
<td>105,921</td>
<td>128,378</td>
<td>77,753</td>
<td>99,962</td>
<td>127,011</td>
</tr>
<tr>
<td>Interaction Designer - Web</td>
<td>71,225</td>
<td>89,416</td>
<td>117,372</td>
<td>78,853</td>
<td>93,090</td>
<td>111,911</td>
</tr>
<tr>
<td>Interaction Designer Director - Web</td>
<td>78,318</td>
<td>102,582</td>
<td>143,249</td>
<td>82,788</td>
<td>99,890</td>
<td>116,985</td>
</tr>
<tr>
<td>Interface Developer</td>
<td>69,459</td>
<td>88,825</td>
<td>123,508</td>
<td>71,845</td>
<td>91,064</td>
<td>119,800</td>
</tr>
<tr>
<td>UX Designer</td>
<td>65,690</td>
<td>106,616</td>
<td>126,743</td>
<td>66,190</td>
<td>84,215</td>
<td>116,471</td>
</tr>
<tr>
<td>Web Administrator</td>
<td>47,578</td>
<td>69,143</td>
<td>88,500</td>
<td>28,500</td>
<td>63,709</td>
<td>86,286</td>
</tr>
<tr>
<td>Web Application Developer</td>
<td>58,867</td>
<td>87,783</td>
<td>133,596</td>
<td>64,226</td>
<td>85,660</td>
<td>117,743</td>
</tr>
<tr>
<td>Web Software Developer</td>
<td>67,908</td>
<td>107,111</td>
<td>117,874</td>
<td>84,918</td>
<td>100,934</td>
<td>110,991</td>
</tr>
<tr>
<td>Webmaster</td>
<td>38,096</td>
<td>58,164</td>
<td>87,626</td>
<td>40,001</td>
<td>55,236</td>
<td>78,485</td>
</tr>
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**WEB DEVELOPMENT AND ADMINISTRATION**

**Content Engineer**
- 10th Percentile: 48,584
- Median: 91,492
- 90th Percentile: 130,694
- Low: 49,299
- Average: 82,167
- High: 120,349

**Content Manager**
- 10th Percentile: 54,010
- Median: 72,173
- 90th Percentile: 90,100
- Low: 56,340
- Average: 71,275
- High: 85,989

**Content Specialist**
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- 90th Percentile: 82,585
- Low: 43,909
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- Median: 105,921
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- Median: 88,825
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- Low: 71,845
- Average: 91,064
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- 90th Percentile: 126,743
- Low: 66,190
- Average: 84,215
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**Web Administrator**
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- Median: 69,143
- 90th Percentile: 88,500
- Low: 28,500
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**Web Application Developer**
- 10th Percentile: 58,867
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- 90th Percentile: 133,596
- Low: 64,226
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**Webmaster**
- 10th Percentile: 38,096
- Median: 58,164
- 90th Percentile: 87,626
- Low: 40,001
- Average: 55,236
- High: 78,485
AEROSPACE

Aerospace Engineer
Designs and supervises the construction of aircrafts and associated parts such as airframe, communication equipment, controls, fuselage and power plants. Analyzes results of stress tests on aircraft and missile parts and conducts research to determine flight characteristics. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.

Composite Engineer
Develops, processes and tests materials used to create a range of products, from computer chips and aircraft wings to golf clubs and snow skis. Helps select them and develop new ways to use materials. Requires a bachelor’s degree in materials science, engineering or a related field.

Design Engineer
Develops new products and enhances existing products. Provides technical support to production team during product launches. Must be able to perform 3D modeling and finite element analysis. Requires a bachelor’s degree, typically in mechanical engineering, and at least 3 years of experience.

Electrical Engineer
Designs, tests, installs and maintains large-scale electronic equipment or machinery. Uses computer assisted engineering and design software. Relies on instructions and established guidelines. Typically reports to a supervisor. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.

Mechanical Engineer
Designs, develops and tests all aspects of mechanical components, equipment and machinery. Applies knowledge of engineering principles to the design of engines, instruments, controls, robots, machines, etc. Relies on instructions and guidelines. Works under immediate supervision. Requires a bachelor’s degree in engineering and 0-3 years of experience.

Process Engineer
Designs and implements manufacturing processes, equipment and plans to achieve production goals. Identifies and develops processes and equipment needed to produce specific products, parts and components. Relies on instructions and guidelines to perform job functions. Typically reports to a manager or head of a department. Requires a bachelor’s degree and 0-2 years of experience.

Quality Engineer
Performs inspections and sets quality assurance testing models for analysis of raw materials, materials in process and finished products. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

Stress/Structural Engineer
Designs and drafts structures and existing renovations. Analyzes ability of structural components to withstand stresses caused by operational conditions. Determines strength and bending characteristics of parts. Must be proficient in AutoCAD. Requires a bachelor’s degree and 2 years of experience.
**Structural Design Engineer**
Designs load-bearing structures or structural elements, such as buildings, bridges or roadways. Analyzes building materials, develops blueprints or specifications and ensures all projects comply with applicable codes and regulations. Determines cause of structural failures, damages and defects. Relies on limited experience and judgment. Some degree of creativity is expected. Typically reports to a supervisor. Requires a bachelor’s degree and 0-2 years of relevant experience.

**AUTOMOTIVE**

**CNC Machinist**
Implements setup and operation of CNC heavy machinery to produce parts and tools from metal, plastic or other materials. Adjusts machine to control speed, material feed and the path of the cut. May require a high school degree and up to 2 years of relevant experience.

**PLC Engineer**
Designs, develops and supervises all aspects of electrical control systems and automated lines. Oversees computer software that controls the line. Responsible for providing design engineering services for new product development, sustaining operations and customer support. Requires a bachelor’s degree in engineering and at least 5 years of relevant experience.

**Design Engineer**
Designs new products and makes improvements to existing ones. Evaluates products, parts or processes for cost efficiency and reliability. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

**Designer/Drafter**
Creates the design of vehicles using knowledge of aerodynamics, safety, calibration and aerodynamics. Uses CAD to create renderings of design and makes adjustments based on testing. May be required to create models or prototypes for testing. Requires a bachelor’s degree and at least 5 years of experience.

**Electrical Engineer**
Designs, tests, installs and maintains large-scale electronic equipment or machinery. Uses computer-assisted engineering and design software. Relies on instructions and established guidelines. Typically reports to a supervisor. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.

**Lean/SIX Sigma Manufacturing Engineer**
Leads and implements best practices in manufacturing to achieve cost effective designs. Optimizes use of Lean Manufacturing and Six Sigma tools to research manufacturing development and ensure costs are warranted. Requires a bachelor’s degree in engineering and 2-5 years of relevant experience.

**Mechanical Engineer**
Designs, develops and tests all aspects of mechanical components, equipment and machinery. Applies knowledge of engineering principles to the design of engines, instruments, controls, robots, machines, etc. Relies on instructions and guidelines. Works under immediate supervision. Requires a bachelor’s degree in engineering and 0-3 years of experience.
**Process Engineer**
Designs and implements manufacturing processes, equipment and plans to achieve production goals. Identifies and develops processes and equipment needed to produce specific products, parts and components. Relies on instructions and guidelines to perform job functions. Typically reports to a manager or head of a department. Requires a bachelor’s degree and 0-2 years of experience.

**Program Manager**
Develops and organizes new programs within an organization including overseeing model launches. Coordinates multiple projects that align with overall business goals and the strategic direction of the company. Requires a bachelor’s degree in business administration or related field and at least 5 years in an advanced management role.

**Quality Auditor**
Quality Auditor is responsible for making sure that all laws have been followed when an automotive product is about to be launched. Checks all work done by team members, follows government codes closely, and assures that a product is ready to be used by the public. Schedules regular yearly and monthly audits throughout the manufacturing process to review requirements. Publishes reports following a final audit and checks in on all issues until a product has met automotive industry standards.

**Quality Engineer**
Performs inspections and sets quality assurance testing models for analysis of raw materials, materials in process and finished products. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

**EMBEDDED SYSTEMS**

**Embedded Systems Architect**
Embedded Systems Architect responsibilities include designing and implementing software of embedded devices and systems, review and design code, integrate and validate new product designs, and develop system software from design through debugging. Proven work experience in software engineering required. Experience in embedded systems design with preemptive, multitasking real-time operating systems is also necessary.

**Embedded Software Engineer**
Embedded software engineer develops embedded software programs. Required to collaborate with clients and conceive programs based on client specifications and needs. Must review and maintain system once developed. Client-facing communication skills are necessary. Often needs to work as part of a larger team. Specialized degree in embedded software engineering is needed.

**Embedded Systems Engineer**
Embedded Systems Engineer is responsible for the design, development, production, testing, and maintenance of embedded systems. Tests systems regularly to eliminate potential issues, provides system level support working with cross functional teams (Mechanical, Software, Hardware, etc.) Systems Engineer provides Subject Matter Expert level experience in Software & Hardware Integration. Computer science or engineering degree required.

**Firmware Engineer**
Firmware engineer creates software used in programmable devices. Designs and implements algorithms for firmware. Required to create...
technical documents describing firmware usage. Oversees firmware development process from design to creation. Manages updates and provides support. May be asked to alter existing software based on company needs. Firmware engineering certification required.

**Hardware Engineer**
Responsible for all aspects of the electrical design of an Electrical System including high-speed digital, power management, PCB layouts and thermal management. Collaborates with algorithm and software team to define and implement high-performance computing platforms. Works directly with System Architecture, Firmware, Mechanical and Electrical Engineers to realize future generations of autonomous driving system solution. Requires a bachelor’s degree in a related field.

**Hardware Test Engineer**
Hardware test engineer designs, implements and tests hardware systems. Uses a wide array of testing techniques. Reviews and tests hardware regularly. Records changes made to hardware and problems related to hardware. Must have the ability to work autonomously and be adept at problem solving. A bachelor’s degree in computer science or a related field is mandatory.

**Mobile App Developer**
Mobile App developer is responsible for writing software for hardware functionality on various handheld mobile devices. They work closely with design and development teams. Requirements for this role typical includes a bachelor’s degree and extensive software development experience.

**Printed Circuit Board Designer**
Printed circuit board designer develops and designs circuit boards. Creates and designs blueprints for circuit boards. Works with larger team to create circuit boards based on company requirements. Typically works for software companies. Must have team collaboration skills and be able to work independently. Background in software engineering or numerous years of experience designing circuit boards is required.

**R&D Engineer**
Research and development engineers create new products and rethink existing products. Can also be required to research new products and test current products. Often works with marketing teams, executive teams, and other related employees. R&D engineers report to project managers. Must have good leadership and communication skills. An engineering background is preferred.

**Software Test Engineer**
Software test engineers are responsible for developing and implementing testing methods, reporting test results and recommending improvements to software programs. Creates Test software to test functionality of Product Code. Job requirements typically includes a bachelor’s degree along with excellent technical skills, communications skill and creativity.

**ENERGY**

**Civil/Structural Engineer**
Designs and supervises construction projects. Estimates costs, personnel and material needs. Prepares proposals and establishes schedules. Relies on instructions and guidelines to perform job functions. Works under immediate supervision. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.
Contract Administrator
Aids in the preparation of contractual provisions and the administration of contract proposals. Prepares bids and negotiates specifications and provisions. Works under direct supervision. Requires a bachelor’s degree and 0-2 years of experience.

Controls Engineer
Designs, develops and supervises all aspects of electrical control systems, equipment and machinery. Relies on instructions and guidelines. Works under immediate supervision. Requires a bachelor’s degree in electrical engineering and 0-2 years of relevant experience.

Electrical Engineer
Designs, tests, installs and maintains large-scale electronic equipment or machinery. Uses computer assisted engineering and design software. Relies on instructions and established guidelines. Typically reports to a supervisor. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.

Electrical Substation Control Designer
Designs and develops layouts for electrical circuits or systems for power distribution. Requires basic knowledge of electrical equipment and local building codes. Relies on instructions and guidelines to perform job functions. Works under immediate supervision. May require a bachelor’s degree in a related area.

Environmental Engineer
Identifies, assesses, reports and resolves problems concerning the environment. May also design, install, operate and maintain measuring apparatus to determine the level of air, land and water pollutants. Relies on instructions and guidelines. Works under immediate supervision.

Requires a bachelor’s degree and 0-2 years of experience.

Instrumentation/Calibration Technician
Calibrates, maintains, repairs and troubleshoots instrumentation and equipment. Relies on instructions and guidelines. Works under immediate supervision. Requires a high school diploma or equivalent and 0-3 years of related experience.

Materials Engineer
Plans for the most cost-effective utilization of materials. Applies knowledge of materials science to recommend engineering and manufacturing changes to attain design objectives. Reviews blueprints and specifications to determine the appropriate materials needed. May require a bachelor’s degree in engineering and 0-2 years of relevant experience.

Nuclear Engineer
Designs, initiates and researches nuclear equipment and systems. Monitors testing, operation and maintenance of nuclear reactors. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree in engineering and 0-2 years of experience.

Planner
Gathers performance data and assesses whether or not departments are performing according to production schedules. Produces reports that evaluate plant capacity and identify areas where improvements can be made. Works under general supervision. Requires a bachelor’s degree and 3-5 years of relevant experience. Relies on experience and judgment.
Project Engineer
Prepares schedules and forecasts resource allocations by reviewing project proposals and plans. May work in conjunction with or in place of a project manager. Requires a bachelor’s degree in engineering or a related area.

Quality Engineer
Performs inspections and sets quality assurance testing models for analysis of raw materials, materials in process and finished products. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

Scheduler
Helps schedule all power purchases and sales as they come in. Provides necessary data to generate profit and loss statements. Relies on instructions and established guidelines. Works under immediate supervision. Requires a high school diploma or equivalent and 0-2 years of experience.

Systems Engineer
Responsible for the planning and engineering of an organization’s systems infrastructure. Includes the implementation and design of hardware and software. Monitors the performance of systems. Relies on limited experience and judgment. Works under general supervision. Typically requires a bachelor’s degree and 0-2 years of relevant experience.

ENGINEERING

CAD Designer
Transforms rough product designs into working documents using Computer-Aided Design (CAD). Reviews engineering drawings and designs to ensure adherence to established specifications and standards. Relies on instructions and established guidelines. Works under immediate supervision. May require an associate degree and 0-2 years of relevant experience.

Chemical Engineer
Designs and initiates processes for the manufacturing of chemicals and related products such as cement, detergents, gasoline, plastics and synthetics. Runs experiments to aid in the development of improved procedures and processes. Requires a bachelor’s degree in engineering and 0-2 years of experience.

Chemist
Performs analytical testing for various material samples while maintaining scientific and regulatory compliance. Often performs off-site sampling and testing. Provides scientific data to summarize testing results, relying on knowledge of testing methods and analysis to provide recommendations. Requires a bachelor’s degree in chemistry and 0-2 years of experience.

Civil Engineer
Designs and supervises construction projects such as airports, bridges, channels, dams, railroads and roads. Estimates costs and personnel and material needs. Prepares proposals and establishes schedules. Relies on instructions and established guidelines. Typically reports to a supervisor.
Requires a bachelor’s degree in engineering and 0-2 years of experience.

**CNC Machinist**
Programs computer numeric-controlled production equipment. Relies on limited experience and judgment. Works under immediate supervision. Some degree of creativity is required. May require a bachelor’s degree and 0-2 years of relevant experience.

**Design Engineer**
Designs new products and makes improvements to existing ones. Evaluates products, parts or processes for cost efficiency and reliability. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

**Electrical Engineer**
Designs, tests, installs and maintains large-scale electronic equipment or machinery. Uses computer-assisted engineering and design software. Relies on instructions and established guidelines. Typically reports to a supervisor. Requires a bachelor’s degree in engineering and 0-2 years of relevant experience.

**Engineering Technician**
Establishes, checks and corrects operational and experimental electrical machinery, circuitry and equipment. Relies on instructions and guidelines. Works under immediate supervision. Requires a high school degree or equivalent with 0-3 years of experience.

**Environmental Engineer**
Identifies, assesses, reports and resolves problems concerning the environment. May also design, install, operate and maintain measuring apparatus to determine the level of air, land and water pollutants. Relies on instructions and guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

**Expeditor**
Facilitates and expedites the flow of materials to and from various departments. Deals with vendors to ensure prompt and accurate delivery. Inspects goods upon delivery. Relies on instructions and established guidelines. Works under immediate supervision. Requires a high school diploma or equivalent and 0-2 years experience.

**Field Technician**
Travels to a site to troubleshoot equipment problems. Ensures maximum efficiency in workflows. Manages onsite installation, maintenance, repairs and testing using proper documentation. May require a technical degree or certification.

**Instrumentation Engineer**
Calibrates, maintains, repairs and troubleshoots instrumentation and equipment for laboratory and manufacturing plants to ensure conformance to established calibration standards. Relies on limited experience and judgment. Typically reports to a supervisor. Requires a high school diploma or equivalent and 2-5 years of experience.

**Laboratory Technician**
Prepares samples and specimens. Follows strict methodologies to perform analyses. Ensures laboratory is properly stocked and maintained. Typically reports to a supervisor. Requires a high school diploma and 2-4 years of experience.

**Manufacturing Engineer**
Designs work processes, tools and/or machines of varying types. Sets
up new equipment, ensures its satisfactory operation and instructs others on proper use. Writes procedures for operating new or existing equipment. Typically reports to a department head. Requires a bachelor’s degree and 3-5 years of experience in the field.

**Mechanical Engineer**

Designs, develops and tests all aspects of mechanical components, equipment and machinery. Applies knowledge of engineering principles to the design of engines, instruments, controls, robots, machines, etc. Relies on instructions and guidelines. Works under immediate supervision. Requires a bachelor’s degree in engineering and 0-3 years of experience.

**Metallurgical Engineer**

Designs and initiates processes for the manufacturing of metals from ores and for the operation of production equipment. Relies on instructions and guidelines to perform job functions. Works under immediate supervision. May require a bachelor’s degree in engineering and 0-2 years of relevant experience.

**Process Engineer**

Designs and implements manufacturing processes, equipment and plans to achieve production goals. Identifies and develops processes and equipment needed to produce specific products, parts and components. Relies on instructions and guidelines to perform job functions. Typically reports to a manager or head of a department. Requires a bachelor’s degree and 0-2 years of experience.

**Program Manager**

Allocates company resources to programs while balancing budget. Identifies needs based on data and knowledge of business needs and personnel requirements. Works across projects to ensure alignment. Requires a bachelor’s degree and at least 6 years of relevant experience.

**Project Engineer**

Prepares schedules and forecasts resource allocations by reviewing project proposals and plans. May work in conjunction with or in place of a project manager. Requires a bachelor’s degree in engineering or a related area.

**Quality Control Inspector**

Performs quality control inspections, checks and tests during the manufacturing process. Inspects materials, parts and products at different stages of production. Records observations and makes recommendations for improvement. Relies on limited experience and judgment. Typically reports to a supervisor. Requires a high school diploma or equivalent.

**Quality Engineer**

Performs inspections and sets quality assurance testing models for analysis of raw materials, materials in process and finished products. Relies on instructions and established guidelines. Works under immediate supervision. Requires a bachelor’s degree and 0-2 years of experience.

**Scheduler**

Helps schedule all power purchases and sales as they come in. Provides necessary data to generate profit and loss statements. Relies on instructions and established guidelines. Works under immediate supervision. Requires a high school diploma or equivalent and 0-2 years of experience.

**Program Manager**

Allocates company resources to programs while balancing budget. Identifies needs based on data and knowledge of business needs and personnel requirements. Works across projects to ensure alignment. Requires a bachelor’s degree and at least 6 years of relevant experience.

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**Scheduler**

Helps schedule all power purchases and sales as they come in. Provides necessary data to generate profit and loss statements. Relies on instructions and established guidelines. Works under immediate supervision. Requires a high school diploma or equivalent and 0-2 years of experience.
Technical Writer

 Writes a variety of technical articles, reports, brochures and/or manuals for documentation. May be responsible for coordinating the graphics and production. Relies on instructions and established guidelines. Works under immediate supervision. May require a bachelor’s degree and 0-2 years of experience.

Medical Device/Pharmaceutical

Biomedical Engineer

Designs, develops and provides safety testing, repair and maintenance of biomedical equipment. Ensures the equipment is in compliance with applicable regulatory requirements and quality control standards. Requires a bachelor’s degree and 0-2 years of direct experience in the field. Relies on limited experience and judgment. Typically reports to a supervisor.

CAPA Coach

Corrective and Preventive Action Coach (CAPA) investigates the root cause of a problem with the goal of preventing future problems. Evaluates current issues and plans prevention tactics for future use. Suggest improvements to a company’s processes to eradicate undesirable outcomes. Coaches team members. Must obtain CAPA training certification in addition to engineering background or degree.

Designer

Designers study, research, develop and design ideas for company’s new products and systems. This includes drafting blueprints, creating test prototypes, and overseeing the manufacturing process. They also modify existing products or processes to increase efficiency or improve performance. Bachelor’s degree may be required.

Development Engineer

Development engineer designs and develops products for companies. Responsible for testing products as well as conceiving new product concepts. Often works alone but can also work as part of a team. Is overseen by a project manager or other high-ranking executive. Products may or may not be developed based on overall design and test results.

Packaging Engineer

Create and develop effective designs to create packaging that’s functional, cost effective, and fits a project’s needs. This involves generating ideas and concepts, testing designs, working with internal teams during the manufacturing process, and reviewing the efficiency of the final packaging. Must be creative problem-solvers who can overcome a design’s potential obstacles.

Process Development Engineer

Process development engineer develops and creates more efficient processes to increase safety, decrease variability and increase flow. Evaluates processes in place and provides suggestions. Researches new technologies to make sure processes are in line with corporate goals. Can also provide training to team members. Must obtain degree in the engineering field.

Project Manager

Oversees all aspects of projects to ensure coordination and completion. Establishes project plan with associated milestones and deadlines, assigns responsibilities, and monitors and summarizes progress. Acts
as a single point of contact and provides coordination of deliverables. Communicates with internal and external team throughout the project. Prepares status reports for upper management.

Quality Assurance Engineer
Quality assurance engineer oversees development of a product from start to finish. Must evaluate development, testing, and all other phases of product development. Responsible for ensuring products meet company standards and requirements. Can be held accountable for faulty products that have not been tested properly. An engineering degree is required.

Quality Engineer
Quality engineer evaluates current manufacturing processes to ensure quality standards, prevent problems, and maintaining processing flow. May be required to communicate with both suppliers and vendors. Often required to perform audits and maintain auditing schedule. Must have strong technical writing and communication skills. Typically required to hold a degree in quality assurance or other related field.

R&D Engineer
Research and development engineers create new products and rethink existing products. Can also be required to research new products and test current products. Often works with marketing teams, executive teams, and other related employees. R&D engineers report to project managers. Must have good leadership and communication skills. An engineering background is preferred.

Regulatory Affairs Specialist
Regulatory affairs officer ensures that all products meet legislative requirements. Studies and understands present laws and advises companies about these requirements. Responsible for staying on top of changing legislation. Can include technical writing of pamphlets or other documents to ensure usage instructions are clearly indicated. Degree in specific field of practice required.

Regulatory Affairs (RA) Specialist
Provides support for the maintenance and implementation of RA systems, with focus on Regulatory Information Management System (RIMS) and Regulatory Distribution Controls through SAP Global Trade Services (GTS) software. Requires experience with data analysis and data mining tools to work with RA systems data to suggest improvements for business process. Create and maintain regulatory affairs registrations and licenses in support of regulatory controls for product distribution. Perform and support User Acceptance Testing (UAT) as needed.

Regulatory Affairs Technician
The Regulatory Affairs Technician responsibilities include assisting in the data input and analysis of data integration into systems. Excellent communication skills and ability to work under deadlines. The ability to organize, follow up with team members around reports and data.

Technical Writer
Writes, edits and packages a variety of technical documents, including proposals, articles, brochures, reports and manuals. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. Significant ingenuity and flexibility are expected. May require a bachelor’s degree and 0-6 years of relevant experience.
requirements and technical support for suppliers. This person ensures all suppliers and materials used are in compliance. Must also ensure that quality standards are met for products produced. Job qualifications include a bachelor’s degree, excellent communication skills and advanced knowledge of manufacturing and government compliance.

**Sustaining Engineer**
Sustaining Engineer is responsible for the support of mature products. This includes new feature requests, bug fixes and product enhancements through the lifespan of the product. Educational requirements typically include a bachelor’s degree.

**Validation Engineer**
Develops, supports and implements basic validation initiatives as defined in site goals and objectives. Responsible for the coordination and documentation of validation efforts with other departments providing validation guidance to all levels for quality assurance, compliance, and continuous quality improvement. Ensures products are developed, manufactured, tested, and delivered according to established procedures that will assure they meet all validation requirements. Develops and executes equipment, material, cleaning, and process validation protocols including statistical analysis of data generated by validation studies. Traditionally requires a bachelor’s degree.

**OIL & GAS**

**Drilling Engineer**
Responsible for the design and implementation of oil and gas wells. Performs design evaluations and recommends alterations to improve safety, cost savings and efficiency. May conduct risk assessment and cost estimation. Requires a bachelor’s degree in engineering and 2-4 years of relevant experience.

**Geological Engineer**
Designs mines for the safe and efficient removal of minerals, such as coal and metals, for manufacturing and utilities. Works mostly in mining operations in remote locations, sometimes also in sand-and-gravel operations located near larger cities. Requires a bachelor’s degree.

**Petroleum Engineer**
Designs and develops methods for extracting oil and gas from deposits below the earth’s surface. Identifies new ways to extract oil and gas from older wells. Generally works in offices or research laboratories, but can also spend long periods of time at drilling sites. Requires a bachelor’s degree in engineering.

**Petroleum Geologist**
Studies and examines variations in rock formations and mineral samples to identify new gas and oil deposits. Analyzes the integrity of wells, and estimates the depth, quality and vastness of deposits. May consult on complex projects. Typically reports to a manager or department head. Requires a bachelor’s degree.
Reservoir Engineer
Responsible for identifying oil and gas reserves and developing strategies to maximize recovery. Designs and tests new wells and monitors and predicts performance. Some creativity and latitude is required. Typically reports to a supervisor. Requires a bachelor’s degree and 2-4 years of experience.

Project Manager
Oversees all aspects of projects to ensure coordination and completion. Sets deadlines, assigns responsibilities, and monitors and summarizes progress. Prepares status reports for upper management. May require a bachelor’s degree and 2-4 years of relevant experience.

Quality Assurance Manager
Manages, coordinates and leads the quality control program to ensure continuous production and consistency with established standards. Through intermediate personnel, manages workers engaged in activities to ensure continuous control over materials, facilities, services and products. May require a bachelor’s degree and 5-8 years of experience.

Quality Control Manager
Oversees the evaluation of a finished product for quality and reliability. May assist in developing quality control standards. Relies on extensive experience and judgment. Manages others. Typically reports to a department head. Requires a bachelor’s degree and 7-10 years of relevant experience.

Technical Illustrator
Creates graphs, charts, schematics and two- and three-dimensional drawings for use in technical reports. Works under general supervision. Typically reports to a manager or department head. A degree of creativity and latitude is expected. May require an associate degree in a related area with at least 3 years of work experience.
**AGILE**

**Agile Coach**
Provides consulting, coaching, and training on Agile practices to enhance Agile software development practices. Identifies organizational impediments to successful Agile transformation and works to effectively resolve them. May manage others. Requires a bachelor’s degree in area of specialty and 10 years of relevant experience.

**DevOps Engineer**
Develops, maintains and optimizes the software development environment. Responsible for infrastructure, build, integration, and software deployment process. Creates email accounts and provides system access. Should know scripting languages such as Ruby and Python. Requires a bachelor’s degree in area of specialty and 2 years of relevant experience.

**Product Owner**
Key stakeholder of a product or product who translates business needs into product requirements and communicates these to the Scrum Team. Maintains a prioritized features list for product and works closely with the Scrum Master to ensure goals are met. Requires a bachelor’s degree in area of specialty and 6 years of relevant experience.

**RTE/Release Train Engineer**
Leads Agile transformation and successful execution of one or more value streams (Release Trains) to support the delivery of strategic technology products. Hybrid role that balances Agile leadership and program management to help software development teams build and deliver solutions more efficiently. Requires a bachelor’s degree in area of specialty and 8 years of relevant experience.

**Scrum Master**
Leads Agile process for one or more Scrum Teams to ensure delivery and releases are within scope. Responsible for ongoing development of team and continued improvement of development process, product quality and quantity of work delivered. Guides and coaches Scrum Team. Requires a bachelor’s degree in area of specialty and 7 years of relevant experience. Scrum Master certification typically preferred.

**Value Stream Engineer**
Principal responsibility of processes and performance across value streams. Coaches Agile team and leaders on Agile process during transition, facilitating conversation across agile team leaders. Possesses strong working knowledge of SAFe working methodology. Typically has a bachelor’s degree and successful experience as a Scrum Master analyst.

**ANALYST**

**Applications Systems Analyst**
Responsible for planning, designing and implementing information systems. Performs encoding, testing, debugging and installation activities as necessary. Works with organizational end users to clarify current operating procedures and communicate program objectives. Relies on established guidelines and instructions, as well as knowledge and professional discretion to perform daily job functions. Usually
reports to a project leader or manager. May require a bachelor’s degree in a related area.

**Business Analyst**
Analyzes and evaluates business systems and user needs to align systems with overall business strategies. Studies system capabilities and data to improve procedures and develop solutions to business problems. Manages requirements at the project level to drive process changes and manage project scope. Requires strong management skills and an associate degree.

**Business Process Consultant**
Monitors, evaluates and makes recommendations to enhance the processes and systems of an organization. Conducts testing to assess the potential impact of recommended improvements. May provide face-to-face consultation to affected stakeholders and departments. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. May manage others. Significant ingenuity and flexibility is expected. May require an advanced degree and at least 7 years of field experience.

**Change Management Specialist**
Evaluates the impact of change, including the implementation or revision of business processes, systems and technology. Conducts an organizational assessment to determine change management strategies that minimize disruption and ensure optimal results. Offers recommendations to senior management based on research and experience. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to top management and is considered to be the top-level specialist in the field. Significant ingenuity and flexibility is expected. Requires a master’s degree in area of specialty and 7 years of relevant experience.

**Data Analyst**
Analyzes data using a variety of techniques. Plans, executes and monitors business solutions. Works directly with clients and project and business leaders to identify analytical requirements. Relies on established guidelines and instructions to perform daily job functions, as well as limited knowledge and professional discretion to achieve goals. Requires a bachelor’s degree in area of specialty.

**DATABASE DEVELOPMENT, ADMINISTRATION & BI**

**Big Data Engineer/Architect**
Provides clean, usable data to clients. Ensures that data pipelines are scalable, repeatable and secure. Builds high-performance algorithms and proof of concepts. Knowledgeable of coding languages and big data technologies. Usually reports to a supervisor. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

**Business Intelligence Analyst**
Analyzes data to extract market and business trends to increase profit, performance and efficiency. Develops and documents business objectives, data requirements, processing documentation and specifications. Possesses strong analytical, leadership, communication, and documentation skills. Usually reports to Business Intelligence Manager. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience. An advanced degree in area of specialty may also be required.

**Business Intelligence Architect**
Designs, develops and enforces standards and architecture for installing,
configuring and using business intelligence applications. Works collaboratively with a team of senior software architects and developers to implement solutions. Designs specifications and standards for semantic layers and multidimensional models for complex business intelligence projects across all environments. Usually reports to Business Intelligence Manager or Director. Requires a bachelor’s degree in area of specialty and at least 8 years of relevant experience. An advanced degree in area of specialty may also be required.

**Business Intelligence Developer**
Responsible for the technical development of the company’s business intelligence applications. Builds solutions that enable clients to solve complex technical challenges through the use of SS&C technology. Primarily works with databases and different types of reporting, visualization or analytic software. Usually reports to Business Intelligence Manager. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience. An advanced degree in area of specialty may also be required.

**Business Intelligence Specialist**
Leads strategic design and implementation activities for business intelligence applications, including integration with databases and data warehouses. Responsible for ensuring business intelligence is available to enhance decision making through all support functions. Identifies, researches and resolves technical problems. Relies on extensive knowledge and professional discretion to plan and achieve goals. Manages others. Significant ingenuity and flexibility are expected. Usually reports to the head of a unit/department. Requires a bachelor’s degree in area of specialty and 5 years of relevant experience.

**Computer Systems Analyst**
Understands the role of IT systems in an organization and determines the best technologies to increase an organization’s efficiency and effectiveness. Oversees the installation and configuration of systems to customize them to fit the organization’s needs. Tests systems and trains organization on how to use systems. Usually reports to a project manager. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

**Data Architect**
Creates and implements a design for the storage and maintenance of data. Develops approaches for warehouse implementation, data acquisition and archive recovery. Deletes old data when necessary. May evaluate new data sources for adherence to quality standards and ease of integration. Significant ingenuity and flexibility is expected. May require a bachelor’s degree and 0-10 years of relevant experience.

**Data Modeling Analyst**
Creates and manages data models in accordance with an organization’s needs. Oversees the flow of information between departments through the use of relational databases. Eliminates data redundancies. Interfaces with stakeholders to understand an organization’s data needs. Relies on knowledge and professional discretion to achieve goals. Significant ingenuity and flexibility is required. May manage others. Usually reports to a manager. May require a bachelor’s degree and at least 5 years of relevant experience.

**Data Scientist**
Extracts and analyzes data and communicates conclusions that drive efficiency and process. Collaborates with data engineers and stakeholders on defining KPIs, data selection, preprocessing and formatting data sets for analysis. Possesses the ability to define, extract,
analyze and implement insights within big data tools. Usually reports to Business Intelligence Manager or Director. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience. An advanced degree in area of specialty may also be required.

**Data Warehouse Developer**
Designs, develops and manages information management strategies and solutions. Oversees the warehouse and all related activities, including data sourcing, migration, design, implementation and quality control. Relies on knowledge and professional discretion to achieve goals. Manages others. Significant ingenuity and flexibility are expected. Usually reports to senior management. Requires a bachelor’s degree with at least 7 years of relevant experience.

**Data Warehouse Specialist**
Designs, models and implements data warehousing activities. Programs and configures databases and provides support to end users. Responsible for verifying data accuracy, implementing business rules and supporting the data warehouse. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. A certain degree of ingenuity and flexibility is required. Requires a bachelor’s degree and at least 2 years of field experience.

**Database Administrator**
Provides technical support for the development, implementation and maintenance of an internal database. Maintains policies and procedures for ensuring database security and integrity. Implements data models, database designs, data access and table maintenance codes. Resolves database performance, capacity, replication and distribution issues. Relies on knowledge and professional discretion to plan and achieve goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 2-4 years of relevant experience.

**Database Analyst**
Maintains data storage and access by evaluating, designing and implementing company database(s). Identifies data sources, constructs data decomposition diagrams, provides data flow diagrams and documents the process. Writes codes for database access, modifications and constructions. Significant ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 0-10 years of relevant experience.

**Database Report Writer**
Responsible for developing, documenting and supporting reporting activity utilizing software. Supports research teams or management by evaluating raw data and reporting results. Works with other stakeholders to achieve desired results. Relies on experience and professional discretion to achieve goals. Usually reports to a supervisor. Some degree of ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and 2-4 years of relevant experience.

**Database Warehouse Analyst**
Assesses business information needs and identifies system requirements. Evaluates business intelligence data and produces reports. Acts as liaison between IT and business units. Ensures data accuracy. Assesses data extraction, report generation and bugs appearing in operations involving the data warehouse. Relies on extensive knowledge and professional discretion to achieve goals. Performs a variety of tasks. Significant ingenuity and flexibility is expected. Usually reports to a supervisor or department head. Significant creativity is expected. Requires a bachelor’s degree in area of specialty and 4-6 years of relevant experience.
Management Analyst
Finds ways to make an organization more efficient and profitable through reduced costs and increased revenues. Conducts analyses of organization’s structure and processes to identify problems and makes recommendations for solutions. Creates oral and written reports on findings. Usually reports to a department head. Requires a bachelor’s degree and minimum of 3-6 years of relevant experience. Certified Management Consultant (CMC) designation recommended.

Oracle Database Administrator
Implements and executes policies to ensure the security, integrity and operability of an Oracle database. Installs and upgrades Oracle server and application tools. Creates database storage structures, resolves database issues and maintains system security. Relies on limited knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 3-5 years of relevant experience.

Report Developer
Responsible for database administration, data consolidation, data analysis and management reporting. Utilizes software to generate metrics and develop actionable recommendations. Supports research teams and management by collecting and analyzing data and reporting results. Collaborates with various functional teams such as marketing, research and IT to achieve business results. Relies on experience, judgment and familiarity with practices and procedures to achieve goals. A certain degree of creativity and latitude is expected. Typically reports to a supervisor or manager. Requires a bachelor’s degree in area of specialty and 2-4 years of experience in the field or in a related area.

Reporting Analyst
Analyzes and evaluates a wide array of data-related business processes and reporting. Develops data-gathering strategies to create reports within Crystal Reports and Tableau. Familiar with SQL and servers to design databases for securing a company’s data. Ability to troubleshoot these systems. May require a bachelor’s degree in a related field.

Software Developer, Big Data
Develops new systems and tools for use with big data intake and analysis. Manages data extraction and builds new data pipelines from various sources, both structured and unstructured. Designs, develops and executes solutions to solve operational and strategic problems. Develops automation for setup and maintenance of big data platform. Usually works under a supervisor, though some flexibility is required. Requires a bachelor’s degree in area of specialty and a minimum of 5-8 years of relevant experience.

SQL Server Database Administrator
Primary owner and maintainer of all SQL server databases. Monitors and maintains database to maximize stability and uptime across production and testing environments. Performs routine backup and recovery testing to ensure data recoverability. Conducts routine server audits to monitor compliance. Troubleshoots SQL Server service outages. Usually reports to a department head. Requires a bachelor’s degree in area of specialty and a minimum of 5 years of relevant experience.
Enterprise Systems

**CRM Application Administrator**
Responsible for administering the Customer Relationship Management (CRM) software. Responsible for maintaining the CRM system and performing necessary updates. Keeps track of enterprise-wide usage of the system and performs administrative tasks. Works under general supervision and usually reports to a manager, though some ingenuity and flexibility is required. Must have a bachelor’s degree in area of specialty and at least 6 years of relevant experience.

**CRM Application Architect**
Designs, develops and constructs Customer Relationship Management (CRM) application systems and consults with clients to meet application needs. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a manager. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 7 years of relevant experience.

**CRM Integration Specialist**
Responsible for Customer Relationship Management (CRM) system integration and development. Ensures all functions of CRM system effectively work with all other applications and operating systems. Familiar with a variety of the field’s concepts, practices and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. Requires a bachelor’s degree in area of specialty and at least 7 years of experience in the field or in a related area.

**CRM Program Director**
Leads the Customer Relationship Management (CRM) initiative for an organization. Reviews CRM project proposals to determine costs, timeline, funding, staffing requirements and goals. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 10 years of relevant experience.

**ERP Administrator**
Ensures optimal performance for Enterprise Resource Planning (ERP) systems. Implements, evaluates and designs ERP systems and applications. Troubleshoots ERP-related issues and monitors ERP systems security. Installs new releases, system upgrades and patches, as required. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a manager, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 3-5 years of relevant experience.

**ERP Analyst**
Helps with the implementation and ongoing maintenance of the Enterprise Resource Planning (ERP) system. Tests ERP layout to ensure the system is meeting business needs. Customizes and configures workflow to facilitate ERP integration with other applications. Relies on knowledge and professional discretion to achieve goals. Significant ingenuity and flexibility is required. May require a bachelor’s degree and 0-6 years of relevant experience.

**ERP Program Manager**
Acts as liaison between key users of ERP system and ERP system developers. Finds solutions to process weaknesses and tests solutions.
Manages timeline, resources, requirements traceability and overall operational project communication. Usually manages a team across disciplines. Requires a bachelor’s degree and a minimum of 5 years of relevant experience.

**ERP Programmer**
Evaluates, assesses and enhances the programming systems needed to support an organization’s Enterprise Resource Planning (ERP) applications. Ensures that other software can be fully integrated into the ERP system. Develops new modules to enhance system performance. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in area of specialty and 0-6 years of relevant experience.

ERP Project Manager
Designs, produces and executes the Enterprise Resource Planning (ERP) system. Establishes timelines, assigns resources and monitors ongoing progress. Assesses performance of ERP system and recommends enhancements. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. Manages a group of ERP Analysts. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 8 years of relevant experience.

Operating Systems Programmer
Evaluates, designs, implements and refines computer operating systems to meet business goals. Diagnoses, troubleshoots and documents related problems. Usually reports to a project leader, manager or department head. May require an associate degree or its equivalent and 0-10 years of relevant experience.

SAP Basis Consultant
Assists in the analysis, programming, design and implementation of SAP Basis systems. Develops SAP architecture requirements and specifications and ensures the system is meeting corporate needs. Relies on extensive knowledge and professional discretion to achieve goals. Typically reports to a department head. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 7 years of relevant experience.

SAP Program Manager
Works directly with project teams to confirm requirements and scope projects. Ensures SAP projects are delivered within scope, time and budget requirements. Regularly provides manager with project status updates and conveys any complications. Usually reports to a department head. Requires a bachelor’s degree and 7-10 years of relevant experience.

SAP Project Manager
Manages all activities related to SAP implementation projects. Ensures that all SAP project goals are achieved. Relies on extensive knowledge and professional discretion to achieve goals. Typically reports to senior management. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 7 years of relevant experience.

GIS Analyst
Utilizes Geographic Information System (GIS) techniques to better understand certain variables in a given geographic location. Extracts data from GIS software, performs analysis and offers detailed
recommendations based on results. Provides maps and data sets to clients to supplement analysis. Knowledgeable of GIS software and technology. Works in conjunction with CAD drafters and technicians. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor or department head, though some ingenuity and flexibility is required. Requires a bachelor’s degree in area of specialty and 0-10 years of relevant experience.

**Business Systems Analyst**

Designs, develops and implements information systems and operations systems in support of network, communications and core business functions. Evaluates end user needs, client goals, budgets and existing applications to define system requirements and technical standards. May be responsible for drafting user guides and beta testing pre-release systems. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head or senior management. Manages others. Significant ingenuity and flexibility are expected. Requires a bachelor’s degree and at least 7 years of relevant experience.

**Ambulatory Systems Analyst**

Reviews, analyzes and modifies programming systems, including encoding, testing, debugging and installing, to support an organization’s application systems. Consults with users to identify current operating procedures and to clarify program objectives. May be expected to document and describe program development, logic, coding and corrections. Writes manuals for users to describe installation and operating procedures. Familiar with relational databases and client-server concepts. Relies on experience and judgment to achieve goals. Works under general supervision; typically reports to a project leader or manager. A certain degree of creativity and latitude is required. May require a bachelor’s degree in a related area and 2-5 years of experience in the field or related area.

**Ambulatory Systems Architect/Builder**

Develops and implements policies and procedures to ensure that systems support the organization’s business requirements and meet the needs of end users. Defines systems requirements based on user/client needs, cost and required integration with existing applications, systems or platforms. Defines technical standards and functionality tests. May develop specifications, prototypes or initial user guides. Familiar with a variety of the field’s concepts, practices and procedures. Relies on extensive experience, judgment and familiarity with practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a head of a unit/department or top management. May require a bachelor’s degree and at least 7 years of experience in the field or related area.

**Ambulatory Systems Project Manager**

Responsible for the coordination and completion of projects within the information technology department. Oversees all aspects of projects. Sets deadlines, assigns responsibilities and monitors and summarizes progress of project. Builds and maintains working relationships with team members, vendors and other departments involved in the projects. Prepares reports for upper management regarding status of project. Relies on limited experience, judgment and familiarity with standard practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically
Ambulatory Systems Trainer
Participates in and conducts technical training programs. Determines training objectives. Writes training programs, including outline, text, handouts and tests. Designs laboratory exercises. Lectures class — following outline, handouts and texts — on safety, installation, programming, maintenance and repair of software, machinery and equipment. Administers written and practical exams and writes performance reports to evaluate trainees’ performance. Relies on limited experience, judgment and familiarity with standard practices and procedures to achieve goals. Works under general supervision; typically reports to a manager. Requires a bachelor’s degree in a related area and 2-4 years of experience in the field or related area.

Clinical Informaticist
Develops and assists with maintenance of applications, systems and databases specifically for physicians, nurses and other medical users. Provides technical support, documents and resolves known issues. Designs and implements educational and training programs. Reports to Chief Nursing Informatics Officer or Chief Medical Informatics Officer. Requires a bachelor’s degree in an area of specialty and 3-5 years of relevant experience.

Clinical Program Manager
Responsible for developing and monitoring budgets and timelines. Ensures staffing meets service needs while staying within budget. Participates in trainings that contribute to continuing education and professional development. Ensures successful conduct of clinical studies consistent with regulations. Usually manages a team. Requires a bachelor’s degree and a minimum of 5 years of relevant experience.

Clinical Project Manager
Responsible for the coordination and completion of projects within the information technology department. Oversees all aspects of projects. Sets deadlines, assigns responsibilities and monitors and summarizes progress of project. Builds and maintains working relationships with team members, vendors and other departments involved in the projects. Prepares reports for upper management regarding status of project. Relies on limited experience, judgment and familiarity with a variety of practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. May require a bachelor’s degree and 4-6 years of experience in the field or related area.

Clinical Systems Analyst
Reviews, analyzes and evaluates business systems and user needs. Documents requirements, defines scope and objectives and formulates systems to parallel overall business strategies. Familiar with relational database concepts and client-server concepts. Relies on experience and judgment to achieve goals. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager. May require a bachelor’s degree and 4-6 years of experience in the field or related area.

Clinical Systems Architect/Builder
Develops and implements policies and procedures to ensure that systems support the organization’s business requirements and meet the needs of end users. Defines systems requirements based on user/client needs, cost and required integration with existing applications, systems or platforms. Defines technical standards and functionality tests. May
develop specifications, prototypes or initial user guides. Relies on extensive experience, judgment and familiarity with a variety of practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a head of a unit/department or top management. May require a bachelor’s degree and at least 7 years of experience in the field or related area.

Clinical Systems Project Manager
Responsible for the coordination and completion of projects within the information technology department. Oversees all aspects of projects. Sets deadlines, assigns responsibilities and monitors and summarizes progress of project. Builds and maintains working relationships with team members, vendors and other departments involved in the projects. Prepares reports for upper management regarding status of project. Relies on limited experience, judgment and familiarity with a variety of practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a manager or head of a unit/department. May require a bachelor’s degree and 4-6 years of experience in the field or related area.

Clinical Systems Trainer
Participates in and conducts technical training programs. Determines training objectives. Writes training programs, including outline, text, handouts and tests, and designs laboratory exercises. Lectures on safety, installation, programming, maintenance and repair of software, machinery and equipment. Administers written and practical exams and writes performance reports to evaluate trainees’ performance. Relies on limited experience, judgment and familiarity with standard practices and procedures to achieve goals. Works under general supervision; typically reports to a manager. Requires a bachelor’s degree in a related area and 2-4 years of experience in the field or related area.

Configuration Analyst
Responsible for managing the change reporting process by coordinating with customers and manufacturers. Reviews various options within software products and determining the best options to customize the software to fit user needs. Evaluates engineering data to ensure adherence to procedures and policies and product design to establish the effect on the design and changes function of the end product and prepares documents to facilitate the process. Reports to Claims Director or Applications Director. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience.

FACETS Analyst
Implements complex new configuration changes and new configuration requirements into the Facets application, including configuration analysis, design, build and test. Maintains a strong understanding of Facets functionality and benefits while considering non-standard and custom benefit designs. Reports to Applications Director. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

FACETS QA
Provides support during the testing process for new configuration changes to the Facets application and in strategic projects. Experience in testing Facets integration with downstream/upstream systems and vendor applications. Reports to Configuration Analyst. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

Health Information Management (HIM) Project Manager
Directs and oversees all policies and procedures related to healthcare information management. Responsible for ensuring accuracy and efficiency in the medical records and transcription departments. Reviews processes and identifies areas for improvement taking into account the medical records and transcription departments.

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account user needs. May act as liaison between information services and technology department, ensuring that systems are accessible and in accordance with the needs of the organization. Ensures that all record keeping and information disbursement complies with HIPAA regulations. A wide degree of creativity and latitude is required. Typically reports to top management. Requires a bachelor’s degree in area of specialty and at least 10 years of experience in the field or related area.

**HIPAA Security Analyst**

Responsible for identifying risks to information assets and data systems. Ensures compliance with industry standards, relevant regulations and security best practices. Works with cross-functional teams to design and implement security initiatives. Reports to the CIO or CISO. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience.

**NASCO Claims Analyst**

Responsible for assessing the benefit and claims system to identify and document performance issues, and implements the changes necessary for multiple health insurance companies. Performs system changes, claims testing and validation of system updates and upgrades. Reports to the Configuration Analyst. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

**Revenue Cycle Analyst**

Compiles and analyzes revenue information for an organization. Reviews organizational billing practices to ensure invoice accuracy and proper revenue recognition. Reviews ledger for outstanding accounts and contacts clients to initiate collections. Conducts revenue forecast analysis and presents findings to senior management. Relies on experience, judgment and familiarity with standard practices and procedures to achieve goals. Works under general supervision. A certain degree of creativity and latitude is required. Typically reports to a supervisor or manager. Requires a bachelor’s degree and 2-4 years of experience in the field or related area.

**Revenue Cycle Architect/Builder**

Develops and implements policies and procedures to ensure that systems support the organization’s business requirements and meet the needs of end users. Defines systems requirements based on user/client needs, cost and required integration with existing applications, systems or platforms. Defines technical standards and functionality tests. May develop specifications, prototypes or initial user guides. Relies on extensive experience, judgment and familiarity with a variety of practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to a head of a unit/department or top management. May require a bachelor’s degree and at least 7 years of experience in the field or related area.

**Revenue Cycle Project Manager**

Directs and oversees the overall policies, objectives and initiatives of an organization’s revenue cycle activities. Reviews, designs and implements processes surrounding pricing, billing, third party payer relationships, collections and other financial analyses to ensure that clinical revenue cycle is effective and properly utilized. Relies on extensive experience, judgment and familiarity with a variety of practices and procedures to achieve goals. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to top management. May require a bachelor’s degree in area of specialty and at least 10 years of experience in the field or related area.

**Revenue Cycle Trainer**

Required to identify risks to information assets and data systems. Ensures compliance with industry standards, relevant regulations and security best practices. Works with cross-functional teams to design and implement security initiatives. Reports to the CIO or CISO. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience.
Participates in and conducts technical training programs. Determines training objectives. Writes training programs, including outline, text, handouts, and tests and designs laboratory exercises. Lectures class on safety, installation, programming, maintenance and repair of software, machinery and equipment. Administers written and practical exams and writes performance reports to evaluate trainee’s performance. Relies on limited experience, judgment and familiarity with standard practices and procedures to achieve goals. Works under general supervision; typically reports to a manager. Requires a bachelor’s degree in a related area and 2-4 years of experience in the field or related area.

**Chief Information Officer**
Oversees the operations of the information technology (IT) department. Develops and maintains IT policies and standards. Evaluates, develops and implements an IT strategy that aligns with business priorities. Ensures compliance and security. Usually reports to CEO. Manages others. Requires a bachelor’s degree in area of specialty and a minimum of 10 years of relevant experience.

**Chief Information Security Officer**
Acts as the authority for enterprise security standards and policies. Develops information security standards and has ultimate responsibility for the security and functionality of information systems. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree with at least 12 years of experience in the field.

**Chief Technology Officer**
Chief Technology Officer is responsible for all executive decisions regarding the technology and technological resources of a company. Responsible for developing policies and procedures concerning all technology. Work to incorporate the right technology to enhance products and services that focus on external customers. Requirements include in-depth understanding of the industry, excellent leadership and management skills, verbal and written communication skills, and the ability to think “big picture.”

**Vice President of Information Technology**
Responsible for leading, executing and realizing the company’s IT vision and strategy. Assesses IT applications to determine their ability to yield optimal business results. Builds strong relationships across
departments. Maintains overall responsibility for management of e-commerce platforms. Requires 10+ years prior experience in successfully managing web programs and IT teams.

**Director of Engineering**
Responsible for planning, growth and staffing of engineering department. Provides guidance on engineering projects. Writes and reviews proposals, final reports, and technical papers. Manages the execution of product development projects. Prepares and presents reports of engineering projects to management and/or customers. Usually reports to senior management. Manages a team. Requires a bachelor’s degree in area of specialty and a minimum of 10 years of relevant experience.

**Vice President of Engineering**
Oversees engineering and product execution operations. Communicates and ensures that all safety guidelines and standards are followed. Ensures products meet safety and performance regulatory requirements. Creates long-term objectives and standards of performance for the department. Usually reports to senior management. Manages a team. Requires a bachelor’s degree in area of specialty and a minimum of 10 years.

**Information Security Vice President**
Responsible for specific information security functions and the goals, budgets, team, policies and procedures within a security department. Manages direct reports to accomplish security initiatives. Reports to CISO, CIO and/or board of directors. Promotes information security initiatives and awareness. Requires a bachelor’s degree, security certifications, leadership experience and at least 10 years of information security experience.

**MANAGEMENT**

**Data Center Director**
Directs personnel and implements policies to ensure the optimization of servers, networks and systems. Provides timely, accurate and consistent technical infrastructure service and presentation to internal and external clients. Coordinates with other teams to identify and implement new systems to support business function at effective cost. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. Manages others. Significant ingenuity and flexibility is required. Requires a bachelor’s degree in area of specialty and at least 10 years of field experience.

**Information Technology Director**
Plans and implements additions, deletions and major modifications in pursuit of IT and business goals. Assesses needs across the enterprise and within individual business units to determine strategies for meeting business objectives. Modifies existing IT systems or develops new approaches. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to the CIO. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in a related area with at least 8 years of field experience.

**Information Technology Manager**
Manages the IT department. Develops and executes plans that support the organization’s IT needs. Ensures proper functioning of the information processing system and oversees necessary upgrades. Aligns hardware, software and associated peripherals with organizational needs. Relies on extensive knowledge and professional
discretion to achieve goals. Usually reports to senior management. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree and at least 5 years of relevant experience.

**IT Quality Assurance Manager**
Assures consistent quality of IT systems by developing, executing and enforcing enterprise quality assurance practices and procedures. Leads a team of quality assurance analysts and oversees testing and validation initiatives to uncover potential issues. Makes recommendations for product or service enhancements and updates. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to department head. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree with at least 7 years of field experience.

**Data Management Director**
Ensures a smooth and effective data management infrastructure encompassing data warehouses, data stores, database architecture and other related systems. Responsible for overseeing data systems and ensuring they meet organizational requirements. Relies on extensive knowledge and professional discretion to achieve goals. Significant ingenuity and flexibility is expected. Manages others. Usually reports to senior management. Requires a bachelor’s degree and at least 10 years of field experience.

**Data Warehouse Manager**
Designs, develops and manages information management strategies and solutions. Oversees the warehouse and all related activities, including data sourcing, migration, design, implementation and quality control. Relies on knowledge and professional discretion to achieve goals. Manages others. Significant ingenuity and flexibility is expected.

Usually reports to senior management. Requires a bachelor’s degree with at least 7 years of relevant experience.

**Database Administration Manager**
Provides technical leadership for architecture, design, documentation and maintenance of an internal database and related systems. Oversees the evaluation, design and implementation of database enhancements and develops a long-term strategy for data storage. Establishes policies and procedures related to data security and integrity and monitors and limits database access as needed. Relies on extensive knowledge and professional discretion to achieve goals. Manages others. Significant ingenuity and flexibility is expected. Usually reports to top management. Requires a bachelor’s degree with at least 7 years of relevant experience.

**Network Control Center Manager**
Manages the network control function of an organization. Monitors and maintains quality levels for the network and resolves issues related to transmission quality. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 7 years of relevant experience.

**Applications Development Manager**
Builds applications to meet business requirements and oversees a team of analysts or developers. Assesses existing applications and keeps abreast of industry standards and best practices. Determines technical changes, schedules projects and oversees timelines. Implements and monitors quality standards. Relies on extensive knowledge and professional discretion to plan and achieve goals. Manages others. Significant ingenuity and flexibility is expected. Usually reports to a
Information Security Manager
Manages and oversees systems to protect data from unauthorized access. Creates and implements policies and procedures for identifying, recording and addressing security violations. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in area of specialty and at least 7 years of field experience.

Information Security Risk Manager
Identifies and analyzes risks to information assets and IT systems. Defines risk management plans. Manages the information security risk assessment process. Remediates areas of non-compliance by implementing automated policy enforcement when possible. Ensures that project goals are accomplished and in line with business objectives. Requires a bachelor’s degree in area of specialty and 8-10 years of relevant experience.

Help Desk Manager
Oversees timely delivery of quality technical support to internal and external customers. Manages help desk personnel and develops policies and procedures governing how to troubleshoot IT issues, including identification, documentation, distribution and resolution. May assess new products or services and suggest enhancements to senior management. Relies on extensive knowledge and professional discretion to achieve goals. Manages others. Usually reports to a department head. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree and at least 7 years of relevant experience.

PROJECT MANAGEMENT

Project Lead — Application Systems & Programming
Leads application systems and programming teams for individual projects. Provides technical support to project team members. Coordinates team members and enforces schedules. Manages complex application features and technical designs. Develops and executes complex application features. Relies on knowledge and professional discretion to achieve goals. Usually reports to a department head. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in a related area with at least 7 years of experience in the field.

IT Program Manager
Responsible for overall project management and planning for projects and programs. Manages project scope, budgets and resources. Understands, tracks and communicates issues, risks and action items in a timely manner, updating appropriate stakeholders as needed. Requires a bachelor’s degree in area of specialty and a minimum of 5 years of relevant experience.

IT Project Coordinator
Coordinates IT projects and ensures proper use of company IT resources. Generates project status reports, establishes project timelines, leads project meetings and resolves technical issues. Defines the scope of individual projects by analyzing system requirements and business objectives. Documents project progress and milestones. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. Significant ingenuity and flexibility is expected.
Requires a bachelor’s degree and at least 5 years of relevant experience.

**IT Project Manager**
Creates, manages and executes project plans to support the ongoing needs of the IT department. Coordinates resources, establishes deadlines and assigns responsibilities. Tracks the progress of projects and compiles status reports for senior management. Builds working relationships with team members, vendors and other departments involved in the projects. Relies on knowledge and professional discretion to achieve goals. Usually reports to a department head. Significant ingenuity and flexibility is expected. May require a bachelor’s degree and 2-7 years of relevant experience.

**MOBILE DEVELOPMENT**

**Android Developer**
Designs and builds applications for the Android platform. Works with outside data sources and APIs. Fixes bugs and improves application performance. Collaborates with cross-functional teams to determine and launch new features. Should have knowledge of core web technologies (HTML5, CSS3, JavaScript). Requires a bachelor’s degree in area of specialty and 2 years of relevant experience.

**iOS Developer**
Designs and builds applications for the iOS platform. Works with outside data sources and APIs. Fixes bugs and improves application performance. Collaborates with cross-functional teams to determine and launch new features. Should have knowledge of core web technologies (HTML5, CSS3, JavaScript). Requires a bachelor’s degree in area of specialty and 2 years of relevant experience.

**NETWORK/SYSTEMS DESIGN & ADMINISTRATION**

**Citrix Administrator**
Oversees and maintains Citrix applications while developing professional infrastructure and solving technical issues. Designs, develops and manages virtualized application environment. May require a bachelor’s degree in related field and at least 5-10 years of relevant experience.

**Cloud Administrator**
Configures and manages the cloud management system including applications running in its environments. Installs and supports cloud servers including security configurations, patching and troubleshooting issues as needed. Requires a bachelor’s degree in computer science or related field with 2-5 years of relevant experience.

**Network/Systems Administrator**
Oversees and maintains Citrix applications while developing professional infrastructure and solving technical issues. Designs, develops and manages virtualized application environment. May require a bachelor’s degree in related field and at least 5-10 years of relevant experience.

**Cloud Architect**
Defines and executes cloud automation strategy for enterprise applications and application components. Supports, maintains and develops cloud based software. Builds innovative and reliable solutions to meet demanding customer needs. Usually works with minimal supervision. Requires a bachelor’s degree in area of specialty and a minimum of 8 years of relevant experience.

**Cloud Developer**
Builds elastic computation and storage. Automates feedback loop of monitoring resources. Controls the cloud’s size, speed and robustness as needed. Should be fluent in Java and other coding languages.
Requires a bachelor’s degree in area of specialty and a minimum of 5 years of relevant experience.

**Enterprise Infrastructure Architect**

Responsible for guiding the implementation of technology platforms needed to support enterprise infrastructure and initiatives. Assesses system requirements and ensures that system can be integrated with existing applications. Ensures optimal performance for all systems. Offers support to other departments as needed. Possesses extensive knowledge of infrastructure, application programming and web and software applications. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to senior management. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and 6-8 years of relevant experience.

**Linux Administrator**

Provisions, installs, configures and maintains Linux operating systems. Identifies problems associated with the operating system and performs troubleshooting activities. Monitors systems performance and ensures compliance with security standards. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 3-5 years of relevant experience. May also require a Linux certification such as Red Hat®.

**Mail Server Administrator**

Designs, develops and maintains an organization’s email network and system(s). Establishes user accounts and security guidelines, tracks server performance and provides first-level resolution for issues. Monitors existing messaging infrastructure and server usage, ensuring proper working order. May document internal policies or develop training for end users. Relies on knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a manager, though a certain degree of ingenuity and flexibility is required. Requires a bachelor’s degree and 2-4 years of experience in systems administration and/or client support. May require certification in one or more messaging systems.

**Messaging and Collaboration Engineer**

Designs, develops, implements and manages messaging systems. Ensures the consistency and compatibility of all messaging applications. Relies on knowledge and professional discretion to achieve goals. Performs a variety of complicated tasks. Significant ingenuity and flexibility is expected. Usually reports to a supervisor. Requires a bachelor’s degree and at least 5 years of relevant experience.

**Network Administrator**

Supports, designs, maintains and monitors internal and external networks. Implements and manages all systems, applications, security and network configurations. Resolves network performance issues and establishes a disaster recovery plan. Recommends upgrades, patches and new applications and equipment. Provides technical support and guidance to users. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor or department head. May require a bachelor’s degree in area of specialty and 0-10 years of relevant experience.

**Network Architect**

Plans, designs, analyzes and provides technical support for data communications network or group of networks. Designs and implements network solutions. Handles technical issues and major technical projects.
incidents through hands-on troubleshooting. Should be familiar with scripting languages such as Ruby and Python. Requires a bachelor’s degree in area of specialty or equivalent work experience.

Network Control Technician
Manages the company’s network systems and detects, analyzes and resolves issues when necessary. Recommends and implements network enhancements. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. May require an associate degree in a related area and 0-5 years of relevant experience.

Network Engineer
Oversees the installation, configuration and ongoing maintenance of networked information systems. Uses knowledge of LAN/WAN systems to help design and install internal and external networks. Tests and evaluates network systems to eliminate problems and make improvements. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and 0-5 years of relevant experience.

Storage Management Specialist
Develops and implements storage systems and procedures. Resolves issues related to storage systems. Generates usage reports for submission to leadership. Maintains efficient and reliable backup and recovery procedures. Experienced with operating systems and Storage Area Networks (SAN) and backup solutions. Relies on knowledge and professional discretion to achieve goals. Usually reports to a department head. May manage others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in area of specialty and at least 5 years of relevant experience.

Systems Engineer
Builds, maintains and monitors installed systems and infrastructure. Installs, configures, tests and maintains operating systems, application software and system management tools. Corrects software errors in existing systems, improves performance through hardware upgrades and implements new systems. Requires a bachelor’s degree in area of specialty and at least 6 years of relevant experience.

Systems Administrator
Maintains and operates computer systems or networks. Installs, supports and manages servers and resolves issues as needed. Installs patches and performs system backups and recovery. Monitors system configuration and maintains data files. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area with 2-5 years of relevant experience.

Telecommunications Analyst
Maintains and evaluates a company’s telecommunications system. Plans, produces and assesses telecommunications software solutions. Conducts customer training related to telecommunications features and functionality. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor or department head. Significant ingenuity and flexibility is expected. May require an associate degree or its equivalent and 0-10 years of relevant experience.

Telecommunications Technician
Installs, maintains and repairs telecommunications equipment. Issues reports, facilitates new service requests and determines procedures for installing telephone service. Assesses the need for equipment changes
or modifications. Relies on knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require an associate degree or its equivalent and 0-5 years of relevant experience.

UNIX Administrator
Installs, configures and maintains UNIX operating systems. Performs software installations and upgrades. Diagnoses and resolves UNIX-related issues and logs troubleshooting reports. Relies on knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 2-5 years of relevant experience.

Systems Architect
Systems Architect is responsible for the architectural design, development, and deployment of the enterprise’s overall systems. This includes the design of technical infrastructure such as hardware, software, web portals, Internet and intranet connections, firewalls, servers and systems security. May require a bachelor’s degree in a related area and 2-5 years of relevant experience.

.NET Architect
Develops and implements approach to new frameworks, including architecture blueprints and roadmaps, based on interdepartmental goals. Ensures project compliance with applications’ architectural roadmaps, principles, standards and reference architectures. Tests and maintains applications to work out bugs. Requires a bachelor’s degree in area of specialty and 5 years of relevant experience.

Applications Engineer
Supports the design, development and modification of applications and programs. Evaluates company products and competing equipment on the basis of ability and capacity. Acts as the technical liaison to the sales team by providing capability reports. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor or department head, though some ingenuity and flexibility is required. May require a bachelor’s degree in area of specialty and 0-10 years of relevant experience.

Applications Systems Architect
Leads the development of system design and execution. Documents development requirements for database, applications and operation system environment. Consults with end users to test and debug applications to meet client needs. Serves as expert for all aspects of application design and development and may lead training for IT staff. Relies on extensive...
knowledge and professional discretion to achieve goals. May offer consultation to senior leadership and is considered to be the top-level expert in this field. Usually reports to a department head. Requires a bachelor’s degree and may be expected to have an advanced degree in area of specialty and at least 5 years of relevant experience.

**Client/Server Programmer**

Supports client/server software applications by reviewing, assessing and modifying programming systems. Familiar with relational database concepts and client-server concepts. Relies on knowledge and professional discretion to achieve goals. Usually reports to a project leader or manager. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in a related area and 0-10 years of relevant experience.

**Fullstack Developer**

Responsible for designing and developing both front and back-end website architecture. Creates and optimizes new web design features while ensuring website or application is responsive and interactive. Proficient in multiple server-side languages and frameworks. Requires a bachelor’s degree in computer science or related area.

**Java Architect**

Designs software to meet business and technical needs. Analyzes application specifications and technology approach to ensure scalability. Engages in day-to-day project tracking to ensure team is meeting technical requirements. Contributes to development of standards and practices for Java development. May manage others. Requires a bachelor’s degree in area of specialty and 7-9 years of relevant experience.

**Java Developer**

Creates, designs and tests web-based Java applications to support business goals. Performs program coding and testing and addresses technical issues through research, investigation and debugging. Relies on knowledge and professional discretion to achieve goals. A degree of ingenuity and flexibility is required. Usually reports to a supervisor. Requires a bachelor’s degree in area of specialty and 1-6 years of relevant experience.

**Mainframe Programmer**

Analyzes, designs, develops and tests various components for large-scale mainframe computer systems. Manages online and batch application programs, implements disaster recovery plans and develops specifications and workflows. Relies on knowledge and professional discretion to achieve goals. Usually reports to a project leader or manager. May manage others. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in a related area and 0-10 years of relevant experience.

**Programmer**

Analyzes, designs, develops and tests various programming systems, including encoding, testing, debugging and documenting programs. Relies on knowledge and professional discretion to achieve goals. Usually reports to a project leader or manager. Significant ingenuity and flexibility is expected. May require a bachelor’s degree and 0-10 years of relevant experience.

**Software Architect**

Designs and develops new software and revises old software. Determines product requirements and develops high-level architectural specifications with a focus on feasibility, functionality and ease of integration with existing
systems. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head. May lead a team of developers. Requires a bachelor’s degree and at least 7 years of relevant experience. An advanced degree in area of specialty may also be required.

**Software Engineer**

Creates and designs new software by analyzing, testing, assessing and implementing programming applications. Supports and installs applications and operating system. Assists in the testing process by conducting reviews and analyses, witnessing tests and participating in software certification. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor or department head. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in a related area and 0-10 years of relevant experience.

**Software Development Engineer in Test**

A Software Development Engineer in Test (SDET) is a developer with the primary responsibility of writing frameworks and tools to test products. SDETs are able to understand software internals, debug code, automate repetitive tasks, and implement new tools and frameworks needed to streamline the quality process. Often working with Software Development Engineers and Quality Assurance Engineers to understand project features, review technical designs, and implement automated test tools that help deliver quality features with efficiency.

**Software Support Engineer**

Addresses technical software and setup issues for customers, technicians and engineers. Develops technical solutions and performs troubleshooting activity, when required. Implements workaround procedures when standard methods have failed to ensure issues are addressed as quickly as possible. When necessary, escalates urgent problems to internal resources. Relies on knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. Requires a bachelor’s degree in area of specialty and 0-6 years of relevant experience.

**SECURITY**

**Cybersecurity Analyst**

Performs systems and network analysis of intrusions. Monitors information security alerts to resolve as needed. Reviews security events that may impact overall security. Provides strategic and real time auditing of security-related activities to detect and prioritize threat responses. Performs risk analysis and vulnerability testing. Provides suggested solutions for potential security issues. Requires a bachelor’s degree in a related area and 0-5 years of relevant experience.

**Cybersecurity Architect**

Maintains, configures and troubleshoots cyber security systems. Coordinates cyber security audits and communicates results. Pursues necessary changes of critical tasks identified from audits. Develops, documents and communicates cyber security policies and procedures. Requires a bachelor’s degree in area of specialty and 5 years of relevant experience.

**Data Security Analyst**

Ensures the safety of information systems assets and protects systems from access or destruction. Recognizes intrusion attempts and compromises through reviews and analysis of relevant event details and...
summary information. Prepares and documents standard procedures and protocols. Assesses firewall change requests to determine organizational risk. Requires a bachelor’s degree in area of specialty and 3 years of relevant experience.

**Governance Risk & Compliance Auditor**
Develops and implements audit procedures and recommends IT system or process improvements based on findings. Submits reports on corrections identified and controls in need of improvement. Provides general tracking of issue remediation. Performs risk assessments of existing or new services and technologies to identify and mitigate inherent risks. Requires a bachelor’s degree in area of specialty and 5 years of relevant experience.

**Information Security Administrator**
Implements network security policies, protects network from unauthorized access, monitors network usage and resolves access issues. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a supervisor. May manage others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree with at least 5 years of field experience.

**Information Security Analyst**
Instructs computer users on security policies and procedures. Monitors network activity and ensures data is protected from unauthorized users. Identifies, reports and resolves security violations. Relies on knowledge and professional discretion to plan and achieve goals. Works under general supervision and usually reports to a supervisor, though ingenuity and flexibility is required. May require a bachelor’s degree and 0-8 years of relevant experience.

**Information Security Director**
Responsible for specific information security functions and the goals, budgets, team, policies and procedures within a security department. Manages direct reports to accomplish security initiatives. Reports to a security department VP, CISO or CIO. Promotes information security initiatives and awareness. Requires a bachelor’s degree, security certifications, leadership experience and at least 8 years of information security experience.

**Information Security Engineer**
Provides expertise of security tools within an environment. Assists in oversight, and ongoing management of the information security programs and technical systems. Plans, deploys and manages network security devices. Typically works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require a bachelor’s degree and 0-8 years of relevant experience.

**Information Security Risk Analyst**
Conducts security risk assessments to identify, manage and mitigate risks to applications, systems and services. Conveys recommendations to management and communicates technical information and guidance to IT teams to mitigate security risks. Requires a bachelor’s degree in area of specialty and 1-3 years of relevant experience.

**Information Security Supervisor**
Supervises the data security team and related activity to protect systems from unauthorized access. Identifies, records and addresses security violations. Relies on knowledge and professional discretion to achieve goals. Usually reports to a department head. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in area of specialty and at least 4 years of field experience.
Systems/Application Security Analyst
Evaluates information security systems and applications and suggests enhancements. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree with at least 5 years of field experience.

TECHNICAL SUPPORT

Computer Operator
Monitors and controls computers and peripheral data processing equipment. Enters commands using computer terminal and manages controls on computer and peripheral equipment. Monitors the system for failure or errors and responds by addressing issues or notifying a supervisor. Loads peripheral equipment such as tapes and printer paper for operating runs. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require an associate degree and 0-5 years of experience as a computer operator.

Help Desk Supervisor
Supervises and coordinates activities of help desk personnel. Assists end users in resolving hardware and software issues by fielding telephone calls and email communication, diagnosing problems and performing troubleshooting activities. Develops escalation and resolution procedures and ensures help desk personnel adhere to these procedures. Trains, coaches and mentors help desk personnel. Relies on extensive knowledge and professional discretion to achieve goals. Usually reports to a department head. Significant ingenuity and flexibility is expected. Manages others and has some authority for personnel actions. May require a bachelor’s degree and at least 5 years of experience.

Help Desk Support
Assists end users in resolving hardware and software issues by fielding telephone calls and email communication, diagnosing problems and performing troubleshooting activities. Documents, tracks and monitors the problem to facilitate a timely resolution. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision. May require an associate degree in a related area and 0-5 years of experience.

Help Desk Support Assistant
Assists end users in resolving hardware and software issues by fielding telephone calls and email communication, diagnosing problems and performing troubleshooting activities. Documents, tracks and monitors the problem to facilitate a timely resolution. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision and usually reports to a supervisor. May require an associate degree in a related area. This is an entry level position and experience may not be required.

LAN Support
Configures, tests, maintains and resolves issues related to LAN. Provides troubleshooting support to end users. Installs workstations. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require an associate degree in a related area and 0-5 years of relevant experience.
LAN/WAN Administrator
Oversees the day-to-day operations of LAN/WAN and related hardware or software. Makes recommendations for products and services enhancements, manages network security, maintains systems and troubleshoots a variety of issues. Relies on knowledge and professional discretion to achieve goals. Usually reports to a department head. May manage others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in an area of specialty and 2-5 years of relevant experience.

PC Maintenance Technician
Installs, tests, monitors, upgrades, troubleshoots and repairs computer systems, networks and peripherals. Manages user account information, including rights, security and systems groups. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require an associate degree or its equivalent and 0-5 years of relevant experience.

Technical Support Analyst
Provides technical assistance to end users by answering questions or troubleshooting issues. Documents interactions with end users and recommends improvements. Responsible for evaluating operational efficiency of different IT systems. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require an associate degree in a related area and 0-5 years of relevant experience.

TECHNICAL WRITING

Documentation Specialist
Produces and maintains documentation related to programming, systems and user guides. Drafts and organizes documentation efforts, including online help and written user guides. Utilizes business specifications and technical data to write user documentation. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a supervisor, though a certain degree of ingenuity and flexibility is required. May require an associate degree and 0-5 years of relevant experience.

Instructional Technology Specialist
Assists with the development of technical training materials and instructional courses. Coordinates with vendors, monitors training facilities and acts as a liaison between educators and end users. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. May manage others. Significant ingenuity and flexibility is expected. Typically reports to a manager. Requires a bachelor’s degree in an area of specialty and 2-4 years of relevant experience.

Technical Trainer
Plans, prepares for and leads technical training classes. Determines training goals, drafts training materials and designs and administers exams. Monitors performance of class participants and issues final evaluations. Relies on limited knowledge and professional discretion to achieve goals. Works under general supervision and usually reports to a manager. Requires a bachelor’s degree in a related area and 2-4 years of relevant technical experience.
Technical Writer
 Writes, edits and packages a variety of technical documents, including proposals, articles, brochures, reports and manuals. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor. Significant ingenuity and flexibility is expected. May require a bachelor’s degree and 0-6 years of relevant experience.

QUALITY ASSURANCE

Performance Test Engineer
 Responsible for conducting system performance testing to ensure reliability, capacity and scalability. Also responsible for analyzing test results and working with development teams for bug fixes. May require a bachelor’s degree and 0-2 years of relevant experience.

Quality Assurance Specialist
 Responsible for evaluating products as non-damaged while assessing production and manufacturing processes. Performs and oversees quality testing on products to identify any defects before its release to the market. Addresses issues with supervisors to discuss possible resolutions. Maintains records of product tests and actions taken. This is an entry-level position and experience is not required.

Release Engineer
 Manages software builds and releases. Responsible for the design and execution of builds, scripts, installation procedures and systems, including source code control and issue tracking. Works collaboratively with quality assurance team to ensure integrity of final version. Relies on knowledge and professional experience to achieve goals. Usually reports to a supervisor. Requires a bachelor’s degree in a related area and 3-5 years of relevant experience.

Software Quality Assurance Analyst
 Evaluates and tests software applications for usability and functionality. Responsible for developing and executing tests, writing and maintaining test automation and formulating quality assurance standards. Determines metrics for assessing quality assurance performance. Must have a working knowledge of quality assurance methodologies. Familiar with NT, UNIX and/or Solaris environments. Relies on knowledge and professional discretion to achieve goals. Usually reports to a supervisor, though some ingenuity and flexibility is required. Requires a bachelor’s degree and 1-5 years of experience coding in C, C++ and Java.

Automation Quality Assurance Tester
 Creates program level automation test plan for a project in conjunction with development team, including testing strategy and approach. Generates test cases and test scripts and devises or acquires test data. Executes test scripts to identify defects prior to production. Requires a bachelor’s degree in area of specialty and 3-5 years of relevant experience.

WEB DEVELOPMENT & ADMINISTRATION

Content Engineer
 Determines content and structure for websites. Designs interface and
navigation tools. Conducts page-level testing. Establishes code standards and oversees code reviews. Evaluates specifications and issues project timelines and schedules. Relies on knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a supervisor or department head, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 0–5 years of relevant experience.

**Content Manager**
Manages all content and projects related to the website. Writes, edits and proofreads new content. Ensures that all documents meet established content standards and works with developers to assess any technical challenges in displaying the content. Relies on extensive knowledge and professional discretion to plan and accomplish goals. Usually reports to senior management. Manages others. Significant ingenuity and flexibility is expected. Requires a bachelor’s degree in a related area and at least 7 years of relevant experience.

**Content Specialist**
Helps with the development and implementation of content for websites. May assist writers and designers in producing a final layout in accordance with company standards. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision and usually reports to a supervisor or manager. Requires a bachelor’s degree with 0–2 years of experience. May be expected to have knowledge of HTML, DHTML and JavaScript programming language.

**Front End Developer**
Designs and develops web applications. Encodes, tests, debugs and supports new and existing programs. Has knowledge of C++ language programming, XMotif programming interfaces, GUI API packages and other GUI principles. Relies on knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and 0–5 years of relevant experience.

**Interaction Designer – Web**
Creates interfaces for a variety of web-based applications. Designs and evaluates visual human interfaces utilizing user-centric design principles. Works with the product development team to achieve desired user experience. Ensures that interfaces function to achieve desired business goals. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision and usually reports to a supervisor. May require an associate degree with 0–2 years of relevant experience.

**Interaction Design Director – Web**
Responsible for directing a team of interface designers in the design and implementation of online interfaces. Leads the design of interface systems, including standards, usability guidelines, design protocols, HTML layouts, GUI prototypes and development procedures. Ensures that interfaces function to achieve desired business goals. Relies on knowledge and professional discretion to plan and accomplish goals. Usually reports to a department head. Manages others. Significant ingenuity and flexibility is expected. May require an advanced degree with at least 5 years of relevant experience.

**Interface Developer**
Designs the visual layout for websites or web-based products with the goal of enhancing appeal to the user while maximizing functionality. Designs graphics, pages, forms and navigation schema. Requires
familiarity with HTML and various graphic design software packages. Has knowledge of commonly used concepts, practices and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager. May require a bachelor’s degree and 0-2 years of experience in the field or in a related area.

**UX Designer**
Develops graphics and designs and organizes copy for online publication. Ensures copy and graphics are appropriately arranged in accordance with company guidelines and visual best practices. May select font styles, sizes and other elements to enhance overall aesthetics. Relies on limited knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require an associate degree or its equivalent and 2-4 years of relevant experience.

**Web Administrator**
Responsibilities include design, develop, maintain and troubleshoot website while taking into account functionality, appearance, content and performance. May require an associate degree or its equivalent and 2-4 years of relevant experience.

**Web Application Developer**
Creates, maintains and implements web-based application systems. Resolves issues and recommends enhancements, when necessary. Has knowledge of HTML, Java and related concepts. Relies on knowledge and professional discretion to plan and accomplish goals. Typically reports to a department head. Significant ingenuity and flexibility is expected. May require a bachelor’s degree in a related area and at least 2-4 years of relevant experience.

**Web Software Developer**
Creates, maintains and implements software packages for websites. Performs troubleshooting and debugging activity. Implements software code. Has knowledge of SQL, C++, HTML, CGI, JavaScript and related concepts. Relies on limited knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a project leader or manager, though some ingenuity and flexibility is required. May require a bachelor’s degree in a related area and at least 2 years of relevant experience.

**Webmaster**
Manages an organization’s overall web presence. Monitors web traffic and ensures website is prepared to meet traffic demands and performance expectations. Leads the development and design of the website to enhance appearance and usability. Requires a working knowledge of HTML, JavaScript and SQL. Relies on knowledge and professional discretion to plan and accomplish goals. Works under general supervision and usually reports to a supervisor, though some ingenuity and flexibility is required. May require a bachelor’s degree and 2-4 years of experience.
ABOUT MODIS

In the converging world of IT and engineering, we are connecting consulting, workforce, and skilling solutions.

Recent global megatrends have created significant disruptions in the world of work resulting in businesses rethinking their strategies and transforming their operating models. This transformation is taking place in three key focus areas: technology, talent, and capabilities. However, organizations are facing a challenge finding a reliable partner that can deliver expertise in all three of these areas.

**Modis is that partner.**

As digitization continues at an exponentially rapid pace, we are using our cross-industry expertise in IT and engineering to guide our partners through this new, digitally-driven world, help them outperform their challenges, and act as enablers of transformation.

We are doing this by connecting them to three highly focused service offerings:

**Consulting Solutions**
Rapidly increase both productivity and efficiency. Partner with us for the highest quality, customized solutions to your most critical challenges.

**Workforce Solutions**
Connect with the smartest IT and engineering talent and the right technical expertise wherever and whenever you need them.

**Skilling Solutions**
Close your organization’s skills gap with Modis Academy.
Cost Savings - It may come as a surprise, but hiring talent through a staffing company is typically less costly – in both time and money. A bad hire can cost you as much as 2.5 times the person's annual salary in recruiting, replacement, and onboarding expenses.

Access to better talent - Staffing agencies give you access to a large network of potential employees, including both active job seekers and passive candidates that you may not be able to reach on your own. At Modis, we're experts at what we do and know how to match top talent with opportunity in order to ensure an optimal fit.

Enhanced productivity - Running your business is your priority, conducting an internal search can distract you from more important matters. Every interview you conduct, every job posting you place, and every call you make to potential candidates drains time and energy that could be put to better use elsewhere.

Increased buying power - Your budget may not be big enough to accommodate generous benefits and compensation packages, but most staffing partners can help you fill in the gaps. The best staffing companies know what top candidates are expecting in terms of both salary and perks, and they use their size and scale to offer benefits at more affordable rates than you may be able to secure.

Consultative experience - Great staffing companies offer more than just access to talent; they offer access to thought leadership, best practices, and process improvements that can help your business grow.

Lower your hire risk - Have you calculated the risk of hiring on your own? How about the risk of working without recruitment firms? Reduce your risk and improve the quality of your hires by working with Modis. Our comprehensive process is designed to significantly reducing your risk of making a poor hire.
Modis is here to help!

Learn more about our solutions
We help our clients work smarter and be more agile by delivering end-to-end solutions and supporting them not only on a project base, but as a lifelong partner.

Working Intelligence - Resources for Employers
Discover the insights you need to build smarter, more efficient and more agile teams.

Start a conversation
For more details on defining salaries and understanding trends in the job market, contact your local Modis representative.

modis.com/en-us/resources/salary-guide

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