



FOR IMMEDIATE RELEASE

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NOTE: This news release is a summary extract of content from the 2nd Quarter 2025 editions of Foote Partners' *IT Skills Demand and Pay Trends Report* and *IT Skills and Certification Pay Volatility Index*, two market intelligence trend reports updated every 3 months from data contributed by HR departments at 4,722 U.S. and Canadian employers. They contain IT jobs, skills, and certifications data trends published in the firm's *IT Skills and Certifications Pay Index™* and deep-dive benchmark analysis from Foote Partners' research group.

As Al begins to shift from experimental to operational for many employers, paying IT talent is fast becoming a new ballgame. The list of Al-related skills and certifications generating cash pay premiums reported in Foote Partners' IT Skills and Certifications Pay Index™ (ITSCPI) has expanded from 57 to 106 skills and certifications in the past eighteen months.

Market pay gains for IT certifications in the first half of 2025 were most common in *Database/Data Management*, Architecture/Project Mgt/Process and Systems Administration/Engineering categories. For non-certified IT skills the winners were Management/Methodology/Process and Web/E-commerce segments.

648 IT certifications reported in Foote Partners' IT Skills and Certifications Pay Index(ITSCPI) increased in average market value in 2nd quarter 2025---up 0.2%---with a 2-point decrease in pay volatility and now averaging cash pay premiums equivalent to 9.6% of base salary. By contrast, average cash pay premiums for 723 non-certified IT skills declined 0.6% in Q2 2025, reversing a long run of quarterly increases that was only briefly interrupted by a loss in the final quarter of 2024, and are now earning a 6.5% average cash pay premium.

July 22, 2025 – Vero Beach, FL. Extra pay awarded by employers to talented tech professionals for 723 non-certified IT skills—also known as cash pay premiums—which has increased on average over five of the last seven calendar quarters—decreased slightly overall in the second quarter of 2025. This is according to Foote Partners' long-running IT Skills and Certifications Pay Index™ (ITSCPI) of cash pay premiums for 1,371 certified and non-certified IT skills. For 648 IT certifications, the story was just the opposite: a small gain in Q2 2025 following overall declines in three of the previous five calendar quarters.

A key to these performance trends is understanding new pay volatility findings. Supply/demand and pay for IT certifications are arguably vendor-driven and influenced by heavy promotional marketing, while the market value of non-certified IT skills is mostly determined by employers that set the market price while consuming them. Therefore it is important to keep both factors in mind when examining the segmentation of skills that are performing well versus those doing poorly. According to Foote Partners' latest *IT Skills and Certifications Pay Volatility Index*, cash pay premiums for certifications have been significantly less volatile than non-certified IT skills over the past two years. In this period, an average of 32% of non-certified IT skills—about 240--changed in market value every 90 days; for IT certifications, 21%(about 140). That's nearly 400 skills and certifications changing in market value every three months.

Moreover, the gap in average cash pay premium between noncertified and certified IT skills has remained the widest in nearly two decades for the past four years---by more than the equivalent of 3% of base salary. This and other findings come from quarterly compensation data updates provided by 4,722 private and public-sector employers in 83 U.S. and Canadian cities who partner with our firm to report pay for their 462,735 technology professionals in the U.S. and Canada.



"We are continually asked now about how AI and other fast-paced emerging technologies are impacting jobs and pay for tech professionals. And of course, we have decades of evidence from our ITSCPI research to show the popularity of incorporating agility tools like skill pay premiums into pay practices, and right now AI-related skills premiums are gaining popularity. That's if you want to be able to consistently hire and retain workers," explains David Foote, chief analyst and research officer of Foote Partners. "Technology development and adoption rates are uncertain, influencing volatility in competitive pay practices for talent. Where employers want to be positioned in consuming tech—for example 'bleeding edge' or 'lagging edge'—will dramatically impact how flexible they need be in acquiring the right talent."

"But now with AI beginning to shift from experimental to operational for many employers, paying IT talent is becoming a new ballgame. Employers are thinking about jobs more as *tasks*, *not titles*: tasks that can be done entirely by an AI agent/robot, tasks that will be done with a human working with an AI agent/robot, and finally, tasks that are uniquely human and can't be done effectively by AI agents. Skills are mapped directly onto each of these three task segments, except there are new skills and skills combinations required by each task and that will continue to change," insists Foote. "For example, when we began tracking and reporting pay premiums for AI-related skills and certifications, there were only about 57 certified and non-certified skills. Eighteen months later that number has now climbed to 106 skills and certifications related to AI for which employers are willing to pay cash premiums."

Pay Performance, 3/12/24/24/36 months Certified vs. Noncertified Tech Skills



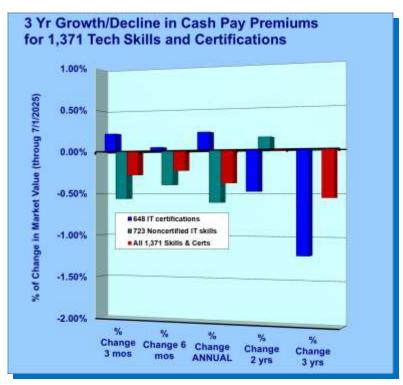


Figure 1

Source: Foote Partners, IT Skills and Certifications Pay Index™ 2Q2022 – 2Q2025 datasets)



HIGHEST PAYING IT CERTIFICATIONS AND NON-CERTIFIED IT SKILLS - Through July 1, 2025

These are IT certifications and non-certified IT skills are at the top the list of highest cash pay premiums based on data shared from April 1, 2025, to July 1, 2025 by 4,722 US and Canadian employers.

With the average cash pay premium for 723 non-certified IT skills being the equivalent of 9.6% of base salary, employers are paying premiums ranging 20% to 23% on average for these non-certified IT skills. Listed in alphabetical order.

- ✓ Amazon Athena
- ✓ Apache Airflow
- ✓ Artificial Intelligence for IT Operations
- ✓ Artificial Intelligence Model Optimization
- ✓ AWS DevOps
- ✓ Azure Machine Learning
- ✓ Bioinformatics
- ✓ Blockchain
- ✓ Computer Vision
- ✓ Convolutional Neural Network
- ✓ Data Architecture
- ✓ Data Engineering
- ✓ Data Governance
- ✓ Data Strategy
- ✓ DevSecOps

- ✓ Ethereum
- ✓ FinOps
- ✓ Flink
- ✓ Identity access management
- ✓ Large Language Model/LLM tuning
- ✓ Machine Learning
- ✓ MLOps
- ✓ Natural language processing
- ✓ Neural Networks
- ✓ ONNX (Open Neural Network Exchange)
- ✓ Prompt Engineering
- ✓ PyTorch
- ✓ Site Reliability Engineering
- ✓ Threat Detection/Modelling/Management

With the average cash pay premium for 648 IT certifications being the equivalent of 6.5% of base salary, employers are paying cash pay premiums ranging 10% to 13% on average for these IT certifications. Listed in alphabetical order.

- ✓ Artificial Intelligence Engineer (AIE all tracks)
- ✓ AWS Certified DevOps Engineer Professional
- ✓ Certificate of Cloud Security Knowledge
- ✓ Certification of Capability in Business Analysis (CCBA)
- ✓ Certified Artificial Intelligence Scientist (CAIS)
- ✓ Certified Cloud Security Professional (ISC2-CCSP)
- ✓ Certified Enterprise Coach (Scrum/Agile)
- ✓ Certified in Governance, Risk and Compliance (ISC(2))
- ✓ Certified in Risk and Information Systems Control (CRISC)
- ✓ Certified in the Governance of Enterprise IT (CGEIT)
- ✓ Certified Information Privacy Manager- all countries
- ✓ Certified Information Security Manager (CISM)
- ✓ Certified Information Systems Security Professional (CISSP)
- ✓ Certified Professional Scrum Product Owner
- ✓ Certified Scrum Product Owner Advanced
- ✓ Certified ScrumMaster Advanced
- ✓ Certified Secure Software Lifecycle Professional
- ✓ Certified Software Quality Manager
- ✓ CyberSecurity Forensic Analyst (CSFA)
- ✓ EC-Council Certified Chief Information Security Officer
- ✓ EC-Council Certified Threat Intelligence Analyst(CTIA)
- ✓ GIAC Certified Incident Handler (GCIH)
- ✓ GIAC Certified Intrusion Analyst (GCIA)

- ✓ GIAC Security Leadership
- ✓ GIAC Strategic Planning, Policy, and Leadership
- ✓ IBM Applied AI Engineering Professional Certificate
- ✓ InfoSvs Security Architecture Professional (ISSAP/CISSP)
- ✓ InfoSys Security Engineering Professional (ISSEP/CISSP)
- ✓ InfoSys Security Management Professional (ISSMP/CISSP)
- MIT CSAIL Professional Certificate in AI and Machine Learning
- ✓ Offensive Security Certified Expert
- ✓ Offensive Security Certified Professional
- ✓ Offensive Security Defense Security Expert (OSSD)
- Offensive Security Experienced Penetration Tester
- ✓ Offensive Security Exploitation Expert (OSEE)
- ✓ Offensive Security Web Expert (OSWE)
- Oracle Cloud Platform Application Integration Certified Professional
- ✓ Pegasystems Certified Data Scientist
- ✓ Pegasystems Certified Lead System Architect
- ✓ PMI Project Management Professional(PMP)
- ✓ PMI Risk Management Professional (PMI-RMP)
- ✓ SAS Certified Professional: Al and Machine Learning
- ✓ Six Sigma Black Belt
- ✓ Six Sigma Master Black Belt



How to interpret gains and losses in IT skills and certifications pay premiums

Quarterly gains and losses in premium pay reflect a widening or narrowing, respectively, in the gap between supply and demand for skills and certifications. This may occur for any number of reasons. For example, a quarterly decline in pay for a skill may signal that the market supply of talent for that skill is catching up to demand—not necessarily that demand is starting to wane. IT professionals are often attracted to a skill or certification if they perceive that it has rising value in the marketplace and therefore can help them to achieve higher pay, greater job security, a promotion, or more flexibility in their career choices. As they pursue greater competency in that skill or as more workers attain certification, supply increases and market pricing (which is elastic to the laws of supply and demand) will be driven downward unless demand is rising at the same proportional rate. Conversely, if demand rises and supply is not increasing to match that level of demand, pay premiums for specific skills and certifications will increase.

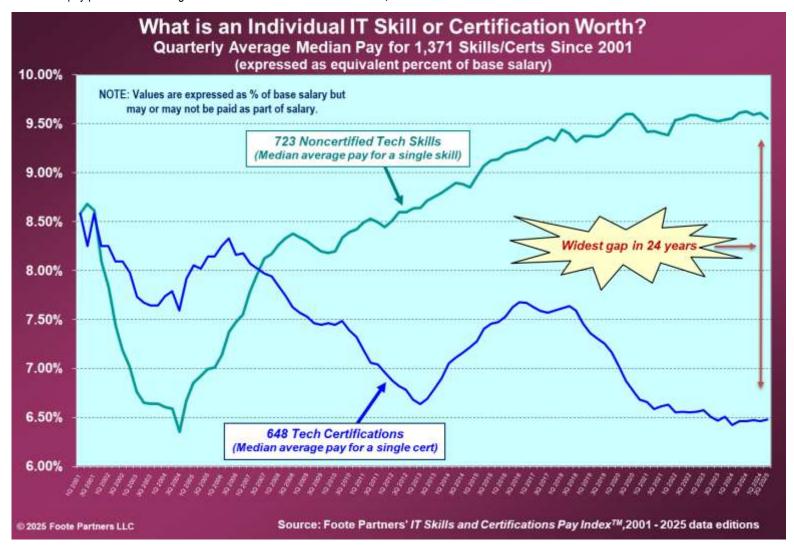
Therefore, when interpreting gains and losses in market pay it is important to consider all factors that could be driving supply and demand and market perception. Those factors range from:

- aggressive marketing of certifications by vendors;
- changes in certification programs (e.g., certification extensions or retirement);
- new technology and evolution/maturation of current technologies;
- technology adoption rate;
- product integration strategies,
- economic conditions;
- employment opportunities;
- mergers/acquisitions;
- budget cycles and the timing of skills and talent acquisition by employers;
- changes in labor sourcing plans pursuant to company strategies.



MULTI-YEAR PAY PREMIUM TRENDS: Certified versus Noncertified IT Skills

Average median cash pay premiums for a single certified or noncertified IT skill. N = 106,642 IT Professional





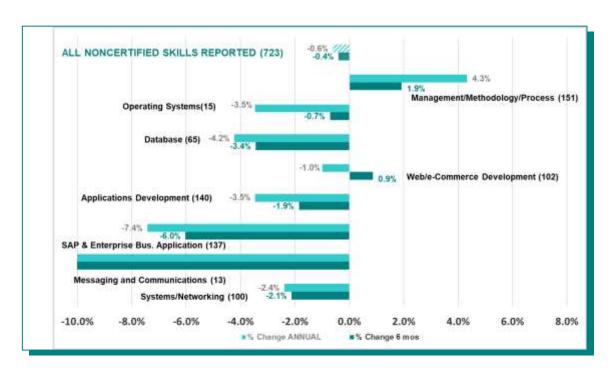
IT NONCERTIFIED SKILLS PAY SUMMARY - Through July 1, 2025

NONCERTIFIED TECH SKILLS PAY PERFORMANCE: By Category

NON-CERTIFIED TECH SKILLS. 265 of 723 **non-certified tech skills** changed cash market value from April 1, 2025 to July 1, 2025, **a 2 percentage point increase** compared to 245 of 714 skills in the prior calendar quarter. The average **c**ash pay premium decreased, down 0.6%, from the 0.2% increase in the prior quarter and gains in four of the five previous quarters.

Noncertified IT Skills - % Growth/Decline 6 months & 12 months

(723 skills, data through 7/1/2025)



Source: Foote Partners <u>IT Skills & Certifications Pay Index™</u>, 2nd quarter 2025 data



NON-CERTIFIED IT SKILLS ANALYSIS – Winners

A. NON-CERTIFIED TECH SKILLS EARNING HIGH PAY---AND STILL GROWING IN VALUE

The following non-certified tech skills meet two prerequisites:

- They earned workers cash pay premiums well above the average of all 723 skills reported in our IT Skills and Certifications Pay Index™ in quarter ending July 1, 2025.
- They recorded gains in cash market value in the six months ending July 1, 2025.

No skill below is earning less than the equivalent of 19 percent of base salary—significant considering the average for all skills reported is 9.6 percent of base—and are listed in descending ranked order of cash premium and market value increases (including ties). Not surprising, the list contains a number of security, data management, analytics and artificial intelligence related skills.

Here is the list of noncertified IT skills pay premiums meeting the above criteria (in alphabetical order):

Here is the list of noncertified IT skills pay premiums meeting the above criteria (in alphabetical order):

Data Strategy AWS DevOps Machine Learning Artificial Intelligence Model Deep Learning Microservices **Deployment Automation** Optimization MLOps

Azure Machine Learning DevOps Natural language processing DevSecOps Neural Networks **Bioinformatics** Blockchain Ethereum Prompt Engineering

PyTorch Computer Vision **FinOps** Data Architecture GitOps Security auditing Threat Detection/Modelling/Mgt

Data Engineering Identity access management

Data Governance Keras

Data Science Large Language Models

Below is the same list, but in descending ranked order of cash premium first and market value increase second (including ties).

1. **AWS DevOps Ethereum**

Average Pay Premium: 23 percent of base salary equivalent

Market Value Increase: 21.1 percent (in the six months through July 1, 2025)

Large Language Model/LLM tuning

Average Pay Premium: 23 percent of base salary equivalent

Market Value Increase: 15 percent (in the six months through July 1, 2025)

Data Strategy

Average Pay Premium: 23 percent of base salary equivalent

Market Value Increase: 4.5 percent (in the six months through July 1, 2025)

Blockchain

Neural Networks

Average Pay Premium: 22 percent of base salary equivalent

Market Value Increase: 29.4 percent (in the six months through July 1, 2025)



NON-CERTIFIED IT SKILLS ANALYSIS - Winners, cont'd.

7. Natural language processing(NLP)

Prompt Engineering

Average Pay Premium: 22 percent of base salary equivalent

Market Value Increase:22.2 percent (in the six months through July 1, 2025)

9. MLOps

Average Pay Premium: 22 percent of base salary equivalent

Market Value Increase: 10 percent (in the six months through July 1, 2025)

10. Data Governance

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 10.5 percent (in the six months through July 1, 2025)

11. Data Architecture

Identity access management

Machine Learning

PyTorch

Average Pay Premium: 21 percent of base salary equivalent

Market Value Increase: 5 percent (in the six months through July 1, 2025)

15. Bioinformatics

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 17.6 percent (in the six months through July 1, 2025)

16. Artificial Intelligence Model Optimization

Azure Machine Learning

Computer Vision

FinOps

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 11.1 percent (in the six months through July 1, 2025)

20. Data Engineering

DevSecOps

Threat Detection/Modelling/Management

Average Pay Premium: 20 percent of base salary equivalent

Market Value Increase: 5.3 percent (in the six months through July 1, 2025)

23. GitOps

Security Auditing

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 26.7 percent (in the six months through July 1, 2025)

25. Data Science

Deployment Automation

DevOps Microservices

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 11.8 percent (in the six months through July 1, 2025)



NON-CERTIFIED IT SKILLS ANALYSIS - Winners, cont'd.

29. Deep Learning Keras

Average Pay Premium: 19 percent of base salary equivalent

Market Value Increase: 5.6 percent (in the six months through July 1, 2025)



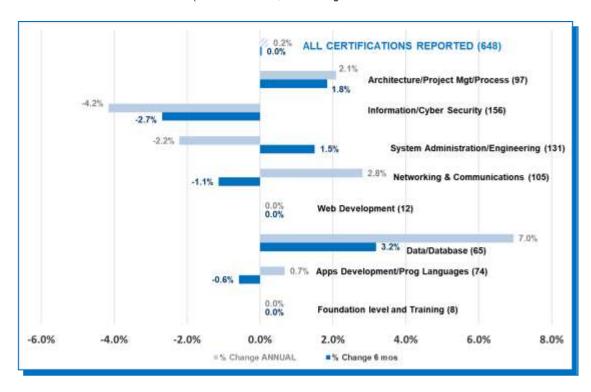
IT CERTIFICATIONS PAY SUMMARY – Through July 1, 2025

A. CERTIFIED IT SKILLS PAY PERFORMANCE: By Category

TECH CERTIFICATIONS. 121 of 648 IT certifications changed cash market value in 2Q 2025 compared to 134 of 648 certifications in the prior quarter, a **2 percentage point decrease**. The average **c**ash pay premium for all certifications reported increased by 0.2% in this quarter following a laarger 0.7%l increase in the prior quarter.

IT Certifications - % Growth/Decline 6 months & 12 months

(648 certifications, data through 7/1/2025



Source: Foote Partners <u>IT Skills & Certifications Pay Index™</u>, 2nd quarter 2025 data



IT CERTIFICATIONS ANALYSIS – Winners

A. IT CERTIFICATIONS: Paying well above average and still growing most in market value

As a group, the 648 IT certifications tracked in our *IT Skills and Certifications Pay Index*TM have decreased in market value in five of the last seven calendar quarters but have showed modest gains in the last two quarters, including in the 2nd quarter 2025. **Let's examine those certifications that have helped drive up average cash pay premiums in the last six months.** The following IT certifications meet two prerequisites:

- They earned workers cash pay premiums well above the average of all certifications in our IT Skills and Certifications Pay Index™ in guarter ending July 1, 2025.
- They recorded substantial gains in cash market value in the six months ending July 1, 2025.

None of the following IT certifications is earning an average cash pay premium of less than the equivalent of 10 percent of base salary—significant considering the average for all certifications reported is 6.5 percent of base—and every certification listed below grew somewhere in the 10 percent to 33 percent range in cash market value in the six months ending July 1st. *They are listed in descending ranked order of market value gain* (including ties).

Here is the list of IT certifications that meet the above criteria (in alphabetical order):

Artificial Intelligence Engineer (AIE - all tracks)
Certification of Capability in Business Analysis
Certified Enterprise Coach (Scrum/Agile)
Certified in Risk and Information Systems Control Cisco
Certified Network Professional - Security
EC-Council Certified Chief Information Security Officer
EC-Council Certified Ethical Hacker
EC-Council Certified Threat Intelligence Analyst
Google Cloud - Professional Cloud Security Engineer

Offensive Security Certified Expert
Offensive Security Certified Professional
Offensive Security Web Expert
Oracle Cloud Platform Application Integration Certified Professional
Pegasystems Certified Data Scientist
PMI Portfolio Management Professional
SAS Certified Professional: Al and Machine Learning

Below is the same list, but in descending ranked order of cash premium first and market value increase second (including ties).

* * * *

1. Offensive Security Certified Expert

Average Pay Premium: 12 percent of base salary equivalent

Market Value Increase: 9.1 percent (in the six months through July 1, 2025)

2. Offensive Security Certified Professional (OSCP)
Offensive Security Experienced Penetration Tester (OSEP)
Certificate of Cloud Security Knowledge (CCSK)

Average Pay Premium: 11 percent of base salary equivalent

Market Value Increase: 22.2 percent (in the six months through July 1, 2025)



IT CERTIFICATIONS ANALYSIS - Winners, cont'd.

5. Artificial Intelligence Engineer (AIE - all tracks) EC-Council Certified Chief Information Security Officer (CCISCO)

Average Pay Premium: 11 percent of base salary equivalent

Market Value Increase: 10 percent (in the six months through July 1, 2025)

7. Six Sigma Black Belt

Teradata Vantage Data Science Master

Average Pay Premium: 10 percent of base salary equivalent

Market Value Increase: 25 percent (in the six months through July 1, 2025)

9. AWS Certified DevOps Engineer - Professional

CyberSecurity Forensic Analyst (CSFA)

GIAC Certified Intrusion Analyst (GCIA)

Offensive Security Defense Security Expert (OSSD)

PMI Project Management Professional(PMP)

Average Pay Premium: 10 percent of base salary equivalent

Market Value Increase: 11.1 percent (in the six months through July 1, 2025)

14. Six Sigma Master Black Belt

Offensive Security Exploitation Expert (OSEE)

Average Pay Premium: 10 percent of base salary equivalent

Market Value Increase: 11.1 percent (in the six months through July 1, 2025)



IT CERTIFICATIONS ANALYSIS - Biggest Losers

IT CERTIFICATIONS THAT HAVE LOST THE MOST MARKET VALUE OVER TIME

L LOSING GROUND: Listed to the right are certifications in alphabetical order that have lost between 27% to 50% percent of their cash pay premium market value in the 24-month period ending July 1, 2025. Some on this list are now retired or scheduled to be.

Why do certifications lose their value?

Certifications decline in market value for a number of obvious and not so obvious reasons. Pay premiums may diminish as a certification expires, is retired, or is replaced with other certifications as technology evolves. Also, there remains a lingering bias that taking a proctored exam does not confer expertise in a subject on the test taker, especially when the pass rate is 70 percent (or less) correct answers. The certification industry has fought back against this bias by adding laboratory requirements and even peer review panels that decide if the candidate has qualified to receive designation.

But just as often it is their <u>popularity</u> that drives down pay premiums for a certification: as interest in a certification escalates and more people attain the certification, the gap between supply and demand for the certification narrows, driving down its market value as the laws of scarcity would dictate. This has been frequently documented in the case of dozens of certifications over the 20+ years Foote Partners has been tracking and reporting their cash pay premiums in the *IT Skills and Certifications Pay Index*.

AWS Certified Solutions Architect - Associate (Cloud)

Certified Business Process Associate (CBPA)

Certified Business Process Leader (CBPL)

Certified Data Privacy Solutions Engineer(CDPSE-ISACA)

Certified Protection Professional

Check Point Certified Security Master (CCSM)

Cisco Certified Design Expert (CCDE)

Cisco Certified Network Associate - Data Center

Cisco Certified Network Associate (CCNA Routing and

Switching)

Citrix Certified Associate - Networking

Citrix Certified Associate - Virtualization

Citrix Certified Professional - Networking

Citrix Certified Professional-Virtualization (CCP-V)

Citrix XenServer Certified (CC-XenServer)

CSX CyberSecurity Practitioner (CSXP)

CWNP/Certified Wireless Analysis Professional (CWAP)

CWNP/Certified Wireless Design Professional (CWDP)

GIAC Certified Forensics Examiner (GCFE)

GIAC Critical Controls Certifications (GCCC)

GIAC Enterprise Vulnerability Assessor (GEVA)

GIAC iOS and MacOS Examiner

GIAC Security Essentials (GSEC)

GIAC Web Application Penetration Tester (GWAPT)

HP Accredited Technical Professional (ATP - all)

Microsoft Certified Azure Data Analyst Associate

Microsoft Certified Azure Solutions Architect

Microsoft Certified Azure Solutions Architect Expert

Microsoft Certified Solutions Associate(all)

Microsoft Office Specialist

Red Hat Certified Specialist in Messaging Administration

SAS Certified Statistical Business Analyst - SAS 9

TIBCO Certified Architect

TIBCO Certified Professional

TOGAF 9 Certified

VMware Certified Professional - Digital Workspace

VMware Certified Professional – Desktop Management 2021



IT Skills & Certifications Pay Data Trend Charts & Analysis

IT Skills and Certifications Pay Index[™] – 2nd Quarter 2025 data edition*

- Noncertified IT Skills (Page 15)
- IT Certifications (Page 24)

IT Skills and Certifications Pay Volatility Index™ – 2nd Quarter 2025 data edition *

- Summary (Page 33)
- IT certifications (page 35)
- Non-certified IT skills (page 36)

*All data collected through July 1, 2025



Noncertified IT Skills Data Trend Charts & Analysis

(Data collected through July 1, 2025)

723 Non-Certified IT Skills Reported

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Agile software development Al Chatbot

Amazon Kinesis

Amazon SageMaker (ML) Amazon Web Services

Apache Airflow Apache Ant Apache Camel Apache Cloudstack

Apache Cordova

Apache Flex

Apache Hadoop Apache Lucene Apache Maven Apache Pig

Apache Spark Apache Struts/Struts2

Apache Tomcat Apache Zookeeper

Appium

Application Security Automated Testing

AWS CDK

AWS CloudFormation AWS CloudFront/CloudFront

Functions AWS CodeDeploy

AWS Lambda Azure Stack

Bamboo/BambooHR Behavior-Driven Development

Bitbucket Boost C++ **Business Objects**

C# C++ C++ /CLI

CA PPM (Clarity PPM)

Cerner Millennium ChatGPT CircleCI Cloiure

Cloudera software

Cloud Foundry PaaS COBOL Cognos Confluence

Continuous Delivery Cucumber

Datadog Delphi Drupal Eclipse Elixir

Epic Systems applications

Erland Ethereum F# Flutter

Full Stack Development

Gemini Generative Al Git/GitHub GitLab GitOps

> Go language (Golang) GoCD

Gosu/Guidewire Gradle Groovy/Grails

qRPC Grunt

Hibernate/NHibernate HP ALM (App. Lifecycle Mgt) **HP Unified Functional Testing**

Integration Testing

iRise Jasmine Java **JBehave** Jenkins JIRA JUnit Kotlin MapReduce MATLAB

Microsoft Azure Microsoft Azure Stack Microsoft Azure Logic Apps

Microsoft Copilot Microsoft PowerApps Microsoft Power Platform Microsoft SQL Server Mgt Studio Microsoft Team Foundation Server

Midjourney Mokito NetWeaver Next.js NIM

Objective-C

NUnit

Objective Caml (Ocaml) Octopus Deploy OpenShift Oracle APEX

Oracle Apps Developer Framework Platform Engineering

PL/SQL Powerbuilder

Progress 4GL/Development tools

R language RapidMiner Red Hat Fuse Rstudio Rubv Ruby on Rails

Rust Saas SAS

SAS Enterprise Guide

Scala Scrum Selenium Semaphore CI/CD ServiceNow ITSM Sonatype Nexus

SpecFlow SPSS SQL

Stable Diffusion

Swift Tcl TeamCity TestNG

TransacT-SQL/tSQLt

Travis CI

UML (unified modeling language)

Visual Basic 6.0 Visual C++ Vue.js

VMware Cloud Foundry PaaS

WebSphereMQ

Xcode

Web/e-Commerce Development

Active Server Pages ActiveX Adobe Analytics

Adobe Experience Manager

Amazon Cloudwatch

AngularJS Apache Solr Apache Velocity Apache web server Apache Wicket Apex Code Backbone.is

Cold Fusion MX Content management systems

CSS/CSS3 Cypress Django

CGI

Docker /Docker Swarm

Documentum

Elasticsearch/Elastic Stack

Ember.is Figma

Front End Development

GatsbyJS Google Analytics Google App Engine Google Cloud AI (Vertex AI,

AutoML) Google Cloud Platform

Gradio GraphQL HTML5

JavaBeans/EJB 3.0

JavaFX JavaScript Java Server Pages JBoss/Wildfly Jetty Joomla! iQuery JSON Julia

KnockoutJS

Laravel PHP Magento/Adobe Commerce

Magnolia Microsoft .NET Microsoft BizTalk Server Microsoft Blazor Microsoft Commerce Server

Server

Microsoft Identity Integration Microsoft Internet Information

Services

Microsoft Forefront Threat Management Gateway (ISA) Microsoft Sharepoint/Sharepoint

Server

Microsoft Silverlight Microsoft Visual Studio

Mobile applications development

Mule/MuleESB Node.is Oracle Fusion Oracle WebLogic/ Oracle Workflow

Pandas Perl PHP (all) PySpark Python React Redux

REST/REST Assured

RESTful SailPoint

Scalable Vector Graphics (SVG)

Secure coding/SW development Sitecore CMS SOAP/SOAP UI Social Media/Networks Spring Framework

Spring Boot Spring Cloud Spring Integration Spring MVC Spring Security TIBCO

UDDI Umbraco **VBScript**

Video/graphics editing Visual Interdev VoiceXML Web collaboration appliances Web Content Development

Web Design WebSphere

WebSphere Datapower

Wikis WSDL XAML/XACML XHTML MP XML (all variants

723 Non-Certified IT Skills Reported

Foote Partners News Release – July 22, 2025

SAP & Enterprise Business

SAP BSP

SAP Business One

| Siebel/Siebel Analytics ce Cloud Software AG webMethods Business SuccessFactors Web Dynpro Workday HCM Data/Database Alteryx Designer Amazon Athena |
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| Amazon DynamoDB |
| Amazon EMR |
| Amazon RedShift |
| Apache Cassandra |
| ications Apache CouchDB |
| Apache Hive |
| (BIW) Apache Iceberg |
| al Composer Apache Ignite |
| Apache Impala |
| Apache Spark SQL |
| Azure Cosmos DB |
| Process Azure Data Factory |
| Azure SQL Data Warehouse |
| Alteryx Designer |
| Amazon Athena |
| Amazon DynamoDB |
| Amazon RedShift |
| Apache Cassandra |
| Apache CouchDB |
| anagement Apache Hive |
| Apache Spark SQL |
| Azure Cosmos DB |
| Asset Mgt) Azure Data Factory |
| Azure SQL Data Warehouse |
| Azure SQL Data Warerlouse |
| Azure Synapse Analytics |
| Base SAS |
| |
| Big Data Blockchain |
| |
| Cloudera Impala |
| Couchbase Server |
| per Data mining |
| Data Vault |
| Database management |
| oment toolkit DB2 |
| dBASE/xBASE |
| n Server ETL (Extract, transform, load |
| (E |

bel/Siebel Analytics Google Data Studio ftware AG webMethods Hbase ccessFactors Informatica b Dynpro Java Database Connectivity rkday HCM Kibana Looker Master data management Database eryx Designer Microsoft Access Microsoft Exchange Server 2010/2013 azon Athena Microsoft SQL Server azon DynamoDB azon EMR 2019/2016/2014/2012 Microsoft SQL Server Integration azon RedShift Services ache Cassandra Microsoft SQL Server Reporting ache CouchDB ache Hive Services (SSRS) MongoDB ache Iceberg MySQL ache Ianite NewSQL Apache Impala NoSQL ache Spark SQL ure Cosmos DB OpenEdge ABL Oracle Application Server ure Data Factory Oracle Business Intelligence re SQL Data Warehouse Enterprise Edition Plus eryx Designer Oracle Coherence azon Athena Amazon DynamoDB Oracle DB 9i/10g/11i/12c Oracle Enterprise Manager nazon RedShift Oracle Exadata ache Cassandra ache CouchDB Oracle Forms Oracle Reports ache Hive PostgreSQL ache Spark SQL Power Query ire Cosmos DB Redis ure Data Factory Riak re SQL Data Warehouse **Smart Contracts** ure SQL Database ure Synapse Analytics Snowflake/Snowflake Schema se SAS Sybase Adaptive Server Data ckchain Teradata TIBCO Spotfire udera Impala Visual SQL uchbase Server ta mining

SAP HR-PA

SAP HCM (SAP HR)

SAP HCM ÈSS/MSŚ

SAP WEBI

SAP WM - EWM

SAP WM

Google BigQuery

GIS

723 Non-Certified IT Skills Reported

Foote Partners News Release - July 22, 2025

Systems/Networking

Active Directory Amazon AWS CloudTrail Amazon Elastic Kubernetes

Service Ansible Apache Flume Arista ATM

AWS Fargate

Azure Active Directory

Azure AKS Azure Sentinel Azure Storage

Business continuity and disaster

recovery planning

CA Endevor Chef/Opscode Cisco ASA Cisco CUCM Cisco ICM Cisco IPCC

Cisco ISE/Identity Services Engine

Cisco Nexus Cisco Prime Cisco UCCE Cisco UCCX

Citrix Hypervisor (XenServer)

Citrix NetScaler

Citrix Virtual Apps (XenApp)

Cloud architecture Cloud security DHCP **EIGRP** Ethernet Fast Ethernet

Fortinet Gigabit Ethernet Google Kubernetes

Grafana

HP ConvergedSystem **HP Quality Center**

laaS (Infrastructure as a Service) Infrastructure architecture Infrastructure as code(IaC) Intrusion prevention/detection sys

IPX/SPX Juniper LAN

Microsoft Application Virtualization

Microsoft Azure Sentinel Microsoft Hyper-V Microsoft SCCM Microsoft SCVMM Microsoft Virtual Server Mobile device management

Mobile security

Multiprotocol Label Switching NAS/Network Attached Storage Network access control/Identity mgt

systems

Network security management NGFW(next-generation firewall)

Novell Netware

PaaS

Performance Analysis/Tuning Performance Management/Metrics Performance Optimization

Performance Testing

Prometheus **Puppet**

Rackspace Cloud RedHat OpenShift

Routing (e.g. OSPF, RIP, IGRP)

SAN/Storage Area Networks

Security skills (project-based) Security Information and Event Management

SMTP

SNA Software-Defined Networking

SolarWinds Orion Storage Virtualization/Admin

TCP/IP Terraform

Tivoli Vagrant vCenter Server vCloud

Virtualization (various)

Virtual security VMware ESXi Server VMware NSX VoIP/IP telephony VPN/OpenVPN WAN/3G/4G services Web Infrastructure

Web services security Wireless Network Mgmnt

Wireless security Wireless sensors/RFID

Wireline Networking/ Telecomm. WML

Operating Systems

AIX

Fedora CoreOS

HP-UX Linux Mac OS X

Mobile operating systems (iOS.

Android) OpenStack

Red Hat Enterprise Linux

Solaris SUSE Unix (all) VMware vSphere Windows 10/11 Windows NT

Windows Server 2019/2016/ 2012

Management, Methodologies and Process

Artificial Intelligence Artificial Intelligence for IT Operations Artificial Intelligence Model Optimization AWS Codebuild

AWS DevOps Azure AI/ML services Azure AI/ML services Azure DevOps Azure Key Vault Azure Machine Learning

Azure Monitor Azure OpenAl Azure Service Fabric

BFRT

Big Data Analytics Bioinformatics **Business Analysis Business Analytics** **Business Intelligence** Business performance mgt Business process management/ modeling/improvement

Capacity Planning/Management

Change management

COBIT

Collaboration software

Complex Event Processing/Event Correlation

Computer Vision

Configuration Management Continuous Improvement Continuous Integration/Continuous

Delivery

Convolutional Neural Network

CRM

Cryptography (encryption, VPN) **Customer Experience**

Cyber Threat Intelligence

Cybersecurity

Data Acquisition and Control

Systems Data Analytics Data Architecture Data Cleansing **Data Engineering** Data Governance Data Integration Data Management **Data Migration** Data Modelling

Data Privacy Data Protection **Data Quality** Data Science Data Security Data Strategy Data Transformation

Data Visualization DataOps

DataRobot Enterprise Al Platform

Deep Learning

Deployment Automation

DevOps DevSecOps Digital Analytics Digital Forensics Digital Marketing

E-Discovery E-Procurement

ERP

Event-Driven Architecture

FinOps Flink

ForgeRock/Ping Identity **Functional Programming** Functional Testing

Game Development/Gamification General Data Protection Regulation

Google TensorFlow

Governance. Risk Management and

Compliance H2O.ai HL7

Hugging Face Transformers

Hyperautomation

Identity access management Incident Management Information management

IT Audit IT Governance

ITIL V3 IT Service Management/ITSM

Kanban Keras

Large Language Model/LLM tuning

Machine Learning

Marketo

Metadata design and development

Microservices

Microsoft SQL Server Analysis Services

Microsoft Visio MLOps Model Tuning Natural language processing

Network Architecture **Neural Networks** NIST/NIST 800 Object Detection/YOLO

ONNX (Open Neural Network Exchange)

OpenCV Penetration testing

Power BI

Predictive Analytics and Modeling

Prescriptive Analytics **Process Improvement** Program Management

Project management/governance

Foote Partners, LLC Foote Research Group

723 Non-Certified IT Skills Reported

Foote Partners News Release – July 22, 2025

Management, Methodologies and Process – cont'd.

Prompt Engineering

PyTorch QlikSense

Quality Assurance/QA Automation

Quality management/TQM

Quantitative Analysis/Regression

Razoi

Requirements Engineering/Analysis

Risk analytics/assessment

Robotic Process Automation

Scaled Agile Framework (SAFe)

Security architecture and models

Security auditing

Security management

Security testing

Scikit-Learn

SEO

Site Reliability Engineering

Six Sigma/Lean Six Sigma

Social media analysis/analytics

Software development lifecycle

management

Splunk

Tableau

Test Automation

Test Driven Development/

Scripting

Threat Detection/Modelling/Mgt

TIBCO BusinessWorks

TOGAF

Unit Testing

Usability Research/Human

Factors Research

User Acceptance Testing

User Experience/User Interface

User-Centered Design

Vulnerability Scanning/

Assessment/Management

Waterfall

Web Analytics

Webtrends analytics

Zachman Framework

Messaging & Communications

ActiveMQ

Apache Camel

Apache Kafka

HCL Domino

Java Messaging Service Message-oriented Middleware

(Wave, XMPP/Jabber, etc.)

Microsoft Exchange

Novell Groupwise

Oracle Comm Messaging Server

RabbitMQ

TIBCO Enterprise Message

Service

TIBCO Rendezvous

Unified Communications/

Messaging

4-YEAR NON-CERTIFIED IT SKILLS PAY TRENDS

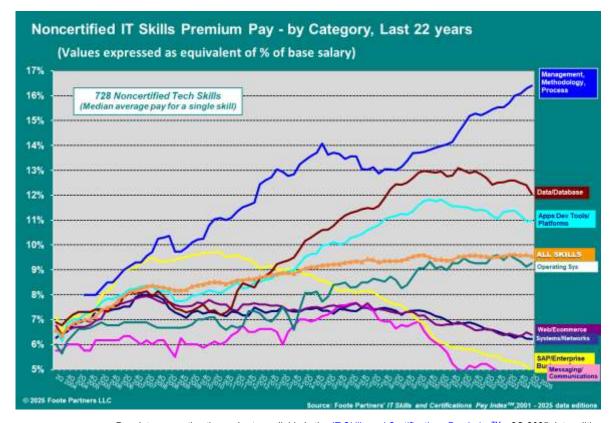
(Through 7/1/2025 – 106,642 IT Professionals)

| 17-YEAR NON-CERTIFIED IT SKILLS PAY TRENDS BY |
|-----------------------------------------------|
| CATEGORY |

% Change in Average Median Pay for a Single Non-certified IT Skill)

(Through 7/1/2025 - 106,642 IT Professionals)

| | | v | | | | | | |
|----------------------------------------|-------------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--|
| NONCERTIFIED IT SKILLS CATEGORIES | # of skills surveyed | % Change 3 mos | % Change 6 mos | % Change ANNUAL | % Change 2 yrs | % Change 3 yrs | % Change 4 yrs | |
| Systems/Networking | 100 | -0.2% | -2.1% | -2.4% | -5.7% | -9.3% | -12.2% | |
| Messaging and Communications | 13 | -8.2% | -12.5% | -17.6% | -23.3% | -18.8% | -32.5% | |
| SAP & Enterprise Business Applications | 137 | -3.2% | -6.0% | -7.4% | -11.5% | -15.2% | -18.7% | |
| Apps Development Tools & Platforms | 140 | 0.2% | -1.9% | -3.5% | -3.4% | -4.7% | -7.2% | |
| Web/e-Commerce Development | 102 | -1.5% | 0.9% | -1.0% | -3.8% | -6.2% | -5.9% | |
| Data/Database | 65 | -2.7% | -3.4% | -4.2% | -4.9% | -7.2% | -6.9% | |
| Operating Systems | 15 | 1.5% | -0.7% | -3.5% | 0.0% | -2.1% | 1.5% | |
| Management/Methodology/Process | 151 | 0.7% | 1.9% | 4.3% | 7.1% | 10.5% | 17.4% | |
| ALL NONCERTIFIED SKILLS REPORTED | 723 | -0.56% | -0.40% | -0.60% | 0.15% | -0.01% | 1.38% | |



Pay data supporting these charts available in the <u>IT Skills and Certifications Pay IndexTM</u> – 2Q 2025 data edition



HIGHEST PAYING Non-certified IT Skills (cash pay premiums, all 723 skills surveyed, ranked)

These non-certified IT skills are among those earning the highest pay premiums (data collected April 1, 2025 to July 1, 2025). Shown in alphabetical order by the overall market value rank in descending order, including ties. Green/Red = increased/decreased in market value this quarter. Purple = Made the list this quarter for the first time.

| A FT. MANO D. O. | A | 01 110 111 1 111 | 0.77.14 |
|---------------------------------|---------------------------------------|---------------------------------------------------|------------------------------------|
| 1.[Tie]AWS DevOps | 4.[cont.] Threat Detection/Modelling/ | 6.[cont.] Predictive Analytics and | 8.[Tie] Apache Spark |
| Data Strategy | Management | Modeling | AWS Codebuild |
| Ethereum | E ET's 1 Association (see No. | Program Management | Azure DevOps |
| Large Language Model/LLM tuning | 5.[Tie] Apache Ignite | Security testing | Azure Key Vault |
| O IT's 1 Dis state to | Data Science | Splunk Tool Division Development (Contribution | Azure Monitor |
| 2.[Tie] Blockchain | Data Transformation | Test Driven Development/Scripting | Big Data analytics |
| Convolutional Neural Network | DataOps | 7 FT'-1 A A1/A41 ' | Business analysis |
| MLOps | Deep Learning | 7.[Tie] Azure Al/ML services | Caffe |
| Natural language processing | Deployment Automation | Azure OpenAl | Data Analytics |
| Neural Networks | DevOps | Business process mapping/ | Data Modelling |
| Prompt Engineering | GitOps | modeling/improvement | Data Protection |
| Site Reliability Engineering | Google TensorFlow | Capacity Planning/Management | ForgeRock/Ping Identity |
| 0.771.1.4 | Keras | Configuration Management | Gemini |
| 3.[Tie] Amazon Athena | Microservices | Cyber Threat Intelligence | General Data Protection |
| Data Architecture | Prescriptive Analytics | Data Integration | Regulation(GDPR) |
| Data Governance | Risk analytics/assessment | Data Migration | Generative Al |
| Machine Learning | Security architecture and models | Data Privacy | gRPC |
| PyTorch | Security auditing | Data Security | Hyperautomation |
| Identity access management | Smart Contracts | Go language (Golang) | IT Governance |
| | Zachman Framework | Gradle | Project management/governance |
| 4.[Tie] Apache Airflow | | H2O.ai | QA Automation/Quality Assurance |
| Artificial Intelligence for IT | 6.[Tie] Apache Iceberg | HL7 | Scaled Agile Framework (SAFe) |
| Operations | Artificial Intelligence | IT Audit | Snowflake/Snowflake Schema |
| Artificial Intelligence Model | Azure Service Fabric | Metadata design and development | Test automation |
| Optimization | Continuous Integration | Network Architecture | Unit Testing |
| Azure Machine Learning | Data Management | Object Detection/YOLO | Vulnerability Scanning/Assessment/ |
| Bioinformatics | Digital Forensics | Quantitative Analysis/Regression | Management |
| Computer Vision | Event-Drive Architecture | Analysis | |
| Data Engineering | Governance, Risk management | Security management | |
| DevSecOps | and Compliance | Software development lifecycle | |
| FinOps | Informatica | management | |
| Flink | Kanban | Waterfall | |
| ONNX (Open Neural Network | NIST/NIST 800 | | |
| Exchange) | Penetration testing | | |

SOURCE: Foote Partners *IT Skills & Certifications Pay Index™*, 2Q 2025 data edition



NON-CERTIFIED TECH SKILLS TREND HIGHLIGHTS: Market Value Gainers & Highest Pay – 2nd Quarter 2025 d

These non-certified tech skills *gained 10% or more in market value in the three months ending July 1, 2025* vs. prior quarter (seen below grouped by segment). *Listed in alphabetical order within each group*. Highest paying skills listed on right in alphabetical order.

| IT SKILLS (non-certified) | | Highest Paying(A-Z) | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Applications Development skills Apache Cordova Apache Maven Apache Struts/Struts2 AWS CloudFront/CloudFront Functions AWS CodeDeploy Bitbucket Gemini GoCD Gradle Grunt JIRA Objective-C Octopus Deploy Oracle Applications Developer Framework Ruby on Rails SAS Enterprise Guide SpecFlow Vue.js Management, Process & Methodology skills HPUX OpenStack SUSE SAP & Enterprise Business Applications skills Oracle ERP Oracle Payroll/Receivables SAP CO (Controlling) SAP Crystal Reports SAP EHS (Environment, Health Safety) SAP GTS (Global Trade Service SAP Hybris SAP MDG (Master Data Governs SAP PP (Production Planning) SAP UI development toolkit for H (SAP UI5) Siebel/Siebel Analytics Database Skills Apache CouchDB Informatica TIBCO Spotfire Source: Foote Partners IT S | Amazon AWS CloudTrail AWS Fargate Business continuity and disaster recovery planning Cisco ASA Citrix NetScaler Microsoft SCVMM Vagrant vCenter Server vCloud MAN 4G/5G services WiMAX/LTE | Amazon Athena Apache Airflow Artificial Intelligence for IT Operations (AlOps) Artificial Intelligence Model Optimization AWS DevOps Azure Machine Learning Bioinformatics Blockchain Computer Vision Convolutional Neural Network Data Architecture Data Engineering Data Governance Data Strategy DevSecOps Ethereum FinOps Flink Identity access management Large Language Model/LLM tuning Machine Learning MLOps Natural language processing Neural Networks ONNX (Open Neural Network Exchange) Prompt Engineering | PyTorch Site Reliability Engineering\ Threat Detection/ Modelling/Mgmt |

NON-CERTIFIED IT SKILLS TREND HIGHLIGHTS: Market Value Losers – 2nd Quarter 2025 data

These non-certified IT skills **declined 10% or more in market value in the three months ending July 1, 2025** vs. prior quarter (seen below grouped by segment). **Listed in alphabetical order within each group**.

IT SKILLS (Non-certified)

Applications Development skills

Amazon Web Services (EC2, ECS, S3,

SQS, ELB, et. al.)

Clojure

Cloud Foundry PaaS

Drupal

Epic Systems applications

1 17

HP ALM (Application Lifecycle Management)

Kotlin

Microsoft Azure Stack Microsoft Copilot

NIM

Red Hat Fuse Visual Basic 6.0

Data/Database

Amazon EMR Amazon RedShift Apache Hive Apache Impala Apache Spark SQL

GIS

Google Data Studio

Hbase

Master data management

Power Query Smart Contracts

Snowflake/Snowflake Schema

Sqoop

SAP & Enterprise Business App skills

ABAP

Enterprise Application Integration (EAI) Microsoft Dynamics/Dynamics 365 NetWeaver Portal (SAP EP)

Oracle BPM

Oracle E-Business suite

Oracle Eloqua

Oracle SCM (Supply Chain Management)

Remedy ITSM Salesforce

Salesforce Sales Cloud Salesforce Service Cloud

SAP BI (BusinessObjects Business Intelligence Platform)

SAP CAR (Customer Activity Repository)

SAP Commerce Cloud

SAP CRM (Customer Relationship Management)

SAP Data Services (SAP BODS)
SAP ERP Operations (multi-skills)

SAP Fiori

SAP for Retail (IS-Retail)

SAP IBP (Integrated Business Planning) SAP MDM (Master Data Management) SAP PI (NetWeaver Process Integration) SAP PLM (Product Lifecycle Management)

SAP S/4HANA

SAP SCM (Supply Chain Management) SAP TM (Transportation Management) SAP WM (Warehouse Management)

SuccessFactors Workday HCM Systems/Networking skills

Active Directory
Amazon Elastic Kubernetes Service

Apache Flume Azure Sentinel Cisco CUCM

Cisco ISE (Identity Services Engine)

Cisco Nexus

Citrix Virtual Apps (XenApp)

Fortinet

Microsoft Application Virtualization (App-V)

NGFW(next-generation firewall)
Performance Analysis/Tuning
Performance Optimization

Salt

SAN/Storage Area Networking Software-Defined Networking

Operating Systems skills

Fedora CoreOS VMware vSphere

Messaging & Communications Skills

Apache Pulsar Java Messaging Service Microsoft Exchange TIBCO Rendezvous

Unified communications/messaging

Web/E-commerce Development

Apache Solr Cypress.io

Elasticsearch/Elastic Stack

Ember.js GatsbyJS Google Analytics

Google Cloud AI (Vertex AI, AutoML) Microsoft Internet Information Services

Mobile applications development

Mule/MuleESB Oracle Workflow Spring Integration Web Design WebSphere

Management, Process & Methodology skills

Business analytics

COBIT

Customer Experience

Data Acquisition and Control Systems

Data Cleansing
Event-Drive Architecture
Hugging Face Transformers
Marketo

Predictive Analytics and Modeling

Security testing
User-Centered Design

Vulnerability Scanning/Assessment/

Management Web Analytics

SOURCE: Foote Partners <u>IT Skills & Certifications Pay Index™</u>, 2Q 2025 data edition



IT Certification Data Trend Charts & Analysis

(Data collected through July, 2025)

Foote Partners, LLC Foote Research Group

648 Tech Certifications Reported

Certified Computer Examiner (CCE)

Foote Partners News Release - July 22, 2025

AccessData Certified Examiner Adobe/Magento 2 Certified Developer-Associate Adobe/Magento 2 Certified Developer-Professional Arcitura Certified Cloud Security Specialist Artificial Intelligence Engineer (AIE) Avaya Certified Design Specialist Avaya Certified Implementation Specialist Avaya Certified Integration Specialist Avava Certified Solution Specialist Avaya Professional Design Specialist AWS Certified Advanced Network - Specialty **AWS Certified Cloud Practitioner** AWS Certified Data Analytics - Specialty AWS Certified Developer - Associate AWS Certified DevOps Engineer - Professional AWS Certified Security - Specialty AWS Certified Solutions Architect - Associate (Cloud) AWS Certified Solutions Architect - Professional (Cloud) AWS Certified SysOpsAdministrator-Associate (Cloud) **AXELOS ITIL 4 certifications** BICSI ITS Technician **BICSI Technician and Registered Communications** Distribution Designer Brocade Certified Network Engineer Brocade Certified Network Professional Brocade Certified Fabric Designer Brocade Certified Fabric Professional (BCFP) (CISMP) Certificate of Cloud Security Knowledge (CCSK) Certificate of Cloud Auditing Knowledge (CCAK) Certification Authorization Professional (CAP) Certified Analytics Professional (CAP)

BTA Certified Blockchain Security Professional (CBSP) Certificate in Information Security Management Principles Certification of Capability in Business Analysis (CCBA) Certified Artificial Intelligence Practitioner (CAIP) Certified Artificial Intelligence Scientist (CAIS) Certified Business Analysis Professional (CBAP) Certified Business Continuity Manager/ISO 22301(CBCM) Certified Business Continuity Professional (CBCP) Certified Business Process Associate (CBPA) Certified Business Process Leader (CBPL) Certified Business Process Professional (CBPP) Certified Cisco Systems Instructor (CCSI)

Certified Cloud Architect

Certified Cloud Security Professional (CCSP)

Certified Cloud Technology Professional

Certified Compliance Professional

Certified Computing Professional (CCP-ISC2) Certified Data Centre Management Professional (CDCMP) Certified Data Privacy Solutions Engineer/ISACA(CDPSE) Certified Data Professional (CDP) Certified Disaster Recovery Engineer (C/DRE) Certified Enterprise Coach (Scrum/Agile) Certified Ethical Al Professional (CEAP) Certified Forensic Computer Examiner (CFCE) Certified Fraud Examiner Certified Healthcare Information Security and Privacy Practitioner (HCISPP) Certified in Convergent Network Technologies (CCNT) Certified in Emerging Technology(CET-ISACA) Certified in Governance, Risk and Compliance(CGRC) Certified in Risk and Information Systems Control (CRISC) Certified in the Governance of Enterprise IT (CGEIT) Certified Information Privacy Manager- all countries Certified Information Privacy Professional - all countries Certified Information Privacy Technologist- all countries Certified Information Security Manager (CISM) Certified Information Systems Auditor (CISA) Certified Information Systems Risk Manager/Mile2 Certified Information Systems Security Professional (CISSP) Certified IP Telecom Network Specialist (CIPTS) Certified Tester Foundation Level (CTFL) v4.0 Certified Tester Foundation Level Agile Tester (CTFL-AT) Certified Tester Advanced Level Test Analyst (CTAL-TA) Certified IT Architect (IASA CITA) Certified Kubernetes Administrator (CKA) Certified Kubernetes Security Specialist (CKS) Certified Manager of Software Quality (CMSQ) Certified Penetration Testing Engineer (CPTE) Certified Protection Professional Certified Scrum Developer Certified Scrum Product Owner Certified Scrum Product Owner - Advanced Certified Scrum Professional - ScrumMaster Certified Scrum Team Coach Certified Scrum Trainer Certified ScrumMaster Certified ScrumMaster - Advanced Certified Secure Software Lifecycle Professional (CSSLP) Certified Software Quality Analyst (CSQA) Certified Telecommunications Network Specialist (CTNS) Certified Tester Foundation Level (CTFL) v4.0 Certified Tester Foundation Level Agile Tester (CTFL-AT) Certified Tester Advanced Level Test Analyst (CTAL-TA)

Cisco Certified CyberOps Professional Cisco Certified Design Expert (CCDE) Cisco Certified DevNet Associate Cisco Certified DevNet Professional Cisco Certified DevNet Expert Cisco Certified Entry Network Technician (CCENT) Cisco Certified Internetwork Expert (CCIE, all variations) Cisco Certified Network Associate - Data Center Cisco Certified Network Associate (CCNA Routing and Switching) Cisco Certified Network Associate (Network Security) Cisco Certified Network Associate (Networking automation and programmability) Cisco Certified Network Associate (was CCNA Cloud) Cisco Certified Network Associate (was CCNA Collaboration) Cisco Certified Network Associate (was CCNA Wireless) Cisco Certified Network Associate (was Design Associate) Cisco Certified Network Professional - Collaboration Cisco Certified Network Professional - Data Center Cisco Certified Network Professional - Service Provider Cisco Certified Network Professional - Enterprise/Design Cisco Certified Network Professional - Enterprise/Routing and Services Cisco Certified Network Professional - Enterprise/Wireless Networks Cisco Certified Network Professional (CCNP-all) Cisco Certified Network Professional - Security Cisco Certified Systems Instructor (CCSI) Cisco Data Center Unified Computing Design Specialist Cisco Data Center Unified Fabric Support Specialist Citrix Certified Associate - Networking Citrix Certified Associate - Virtualization Citrix Certified Expert – Networking Citrix Certified Expert - Virtualization Citrix Certified Instructor (CCI - Virtualization, Networking, or Mobility) Citrix Certified Professional - Networking Citrix Certified Professional - Virtualization (CCP-V) Citrix XenServer Certified (CC-XenServer) CIW Advanced HTML5 and CSS3 Specialist CIW Certified Database Design Specialist CIW Web Design Professional CIW Web Development Professional

Check Point Certified Security Administrator (CCSA) CIW Web Foundations Associate Check Point Certified Security Expert (CCSE) CIW Web Security Professional Check Point Certified Security Master (CCSM) Cloud U (Rackspace) Cisco Certified CyberOps Associate Cloudera Certified Associate Administrator Cloudera Certified Associate Data Analyst Cloudera Certified Associate Spark and Hadoop Developer Cloudera Certified Professional: Data Engineer CompTIA A+ CompTIA Advanced Security Practitioner CompTIA Certified Technical Trainer CompTIA Cloud Essentials CompTIA Cloud+ CompTIA Cybersecurity Analyst+ CompTIA Linux+ CompTIA Mobile App Security+ CompTIA Mobility+ CompTIA Network+ CompTIA Penetration Tester CompTIA Project+ CompTIA Security+ CompTIA Server+ CompTIA Storage+ Convergence Technologies Professional (CTP) CSX CyberSecurity Practitioner (CSXP) CWNP Certified Wireless Security Professional (CWSP) CWNP/Certified Wireless Analysis Professional (CWAP) CWNP/Certified Wireless Design Professional (CWDP) CWNP/Certified Wireless Network Administrator(CWNA) CWNP/Certified Wireless Network Trainer (CWNT) CWNP/Certified Wireless Network Expert (CWNE) CWNP/Certified Wireless Technology Specialist (CWTS) Cyber Security Forensic Analyst Dell Cloud Infrastructure Design Proven Professional Dell Cloud Services Architect - Expert (DCE - CA) Dell Cloud Services Design Proven Professional Dell Data Science Associate (DCA-DS) Dell Data Science Specialist - Advanced Analytics Dell Information Storage and Management Foundations Dell Platform Engineer/PowerScale - Specialist Dell PowerEdge Association(EMC) Dell PowerEdge Professional(EMC) Dell PowerMax (all - Maintenance/Install/Operate) Dell PowerStore (all - Deploy/Operate) EC-Council Certified Application Security Engineer

EC-Council Certified Cloud Security Engineer (CCSE)

EC-Council Certified DevSecOps Engineer (ECDE)

648 Tech Certifications Reported

Foote Partners News Release - July 22, 2025

| EC-Council Certified Encryption Specialist v2(ECES) |
|---------------------------------------------------------------------------------------------|
| EC-Council Certified Ethical Hacker (CEH) EC-Council Certified Incident Handler V2 (ECIH) |
| EC-Council Certified Network Defender |
| EC-Council Certified Penetration Testing Professional |
| EC-Council Certified SOC Analyst (ECSA) |
| EC-Council Computer Hacking Forensic Investigator |
| EC-Council Disaster Recovery Professional (EDRP) |
| EC-Council Web Appication Hacking and Security Testin |
| Fortinet Network Security Expert (NSE) Level 1 |
| Fortinet Network Security Expert (NSE) Level 2 |
| Fortinet Network Security Expert (NSE) Level 3 |
| Fundamentals of Google AI for Web-Based Machine |
| Learning |
| GIAC Assessing and Auditing Wireless Networks |
| GIAC Certified Defending Advanced Threats (GDAT) |
| GIAC Certified Detection Analyst (GCDA) |
| GIAC Certified Enterprise Defender (GCED) |
| GIAC Certified Forensics Analyst (GCFA) |
| GIAC Certified Processing Examiner |
| GIAC Certified Incident Handler (GCIH) GIAC Certified Intrusion Analyst (GCIA) |
| GIAC Certified Intrusion Analyst (GCIA) GIAC Certified Project Manager (GCPM) |
| GIAC Certified Web Application Defender |
| GIAC Certified Windows Security Administrator (GCWN) |
| GIAC Cloud Forensic Responder (GCFR) |
| GIAC Cloud Penetration Tester (GCPN) |
| GIAC Cloud Security Automation (GCSA) |
| GIAC Cloud Security Essentials (GCLD) |
| GIAC Continuous Monitoring Certification (GMON) |
| GIAC Critical Controls Certifications (GCCC) |
| GIAC Cyber Threat Intelligence (GCTI) |
| GIAC Defending Advanced Threats (GDAT) |
| GIAC Defensible Security Architecture (GDSA) |
| GIAC Enterprise Vulnerability Assessor (GEVA) |
| GIAC Exploit Researcher and Advanced Penetration Te |
| (GWAPT) |
| GIAC Information Security Fundamentals (GISF) GIAC Information Security Professional (GISP) |
| GIAC Information Security Professional (GISP) GIAC Mobile Device Security Analyst (GMOB) |
| GIAC Network Forensic Analyst (GNFA) |
| GIAC Penetration Tester (GPEN) |
| GIAC Public Cloud Security (GPCS) |
| GIAC Python Coder (GPYC) |
| GIAC Reverse Engineering Malware (GREM) |
| GIAC Security Essentials (GSEC) |
| GIAC Security Leadership (GSLC) |
| GIAC Security Operations Certified (GSOC) |
| |

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GIAC Security Operations Manager (GSOM)
GIAC Systems and Network Auditor (GSNA)
GIAC Web Application Penetration Tester (GWAPT)
Global Industrial Cyber Security Professional (GICSP)
Google Cloud - Al Engineer Certification
Google Cloud - Professional Cloud Architect
Google Cloud - Professional Data Engineer
Google Cloud - Professional Network Engineer
Google Cloud Associate - Cloud Engineer
Google Cloud DevOps Engineer
Google Professional Cloud Developer
Google Professional Machine Learning Engineer
Google Cloud - Professional Cloud Security Engineer
HDI Customer Service Representative
HDI Desktop Support Manager
HDI Desktop Support Technician
HDI Support Center Analyst
HDI Support Center Director
HDI Support Center Manager
HDI Support Center Team Lead
HDI Technical Support Professional
Help Desk Analyst: Tier 1 Support Specialist/Ed2Go
Help Desk Team Lead/RCCSP
Hitachi Qualified Professional - Storage Administration
HP Accredited Solutions Expert (ASE - all)
HP Accredited Technical Professional (ATP - all)
HP ASE - Storage Solutions V4
HP ATP - Hybrid IT Solutions V2
HP ATP - Storage Solutions V1 /V2
HP Master Accredited Solutions Expert (MASE - all)
HP Master ASE - Hybrid IT Solutions Architect V1
HP Master ASE - Storage Solutions Architect V3
Huawei Certified Network Associate (all)
Huawei Certified Network Expert (all)
Huawei Certified Network Professional (all)
IAPP Certified Information Privacy Manager
IAPP Certified Information Privacy Professional
IBM Advanced Systems Administrator (all)
IBM AI Engineering Professional Certificate
IBM Applied AI Engineering Professional Certificate
IBM Certified Administrator - Cognos Analytics
IBM Certified Application Developer - Cloud Solutions v3
IBM Certified Application Developer - DB2 9.7 for Linux, Unix
  and Windows
IBM Certified Application Developer (all)
IBM Certified Data Architect - Big Data
IBM Certified Data Engineer - Big Data
IBM Certified Database Administrator - DB2 11.1 for Linux,
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IBM Certified Professional Developer - Cloud v4
IBM Certified Professional SRE - Cloud v1
IBM Cloud Security Engineer Specialty
IBM Certified Solution Advisor - Blockchain Platform V2
IBM Certified Solution Advisor - DevOps V2
IBM Certified Solution Architect - Cloud v4
IBM Certified Solution Architect - Data Warehouse V1
IBM Certified Solution Designer (all)
IBM Certified Specialist - Al Enterprise Workflow V1
IBM Certified Systems Administraton: WebSphere
  Application Server Network Deployment
IBM Certified Systems Administrator (all)
IBM Cloud Security Engineer Specialty
Information Systems Security Architecture Professional
  (ISSAP/CISSP)
Information Systems Security Engineering Professional
    (ISSEP/CISSP)
InfoSys Security Management Professional
  (ISSMP/CISSP)
ITIL Expert Certification
ITIL Foundation Certification
ITIL Intermediate Certification
ITIL Master Certification
JBoss Certified Developer (Seam. Persistence, ESB)
Juniper Networks Certified Internet Associate
Juniper Networks Certified Internet Expert
Juniper Networks Certified Internet Professional
Juniper Networks Certified Internet Specialist
Linux Foundation Certified Engineer
Linux Foundation Certified System Administrator
Linux Professional Institute certification (LPIC-2)
Linux Professional Institute certification (LPIC-3)
MCSF: Core Infrastructure
Microsoft Certified Azure Administrator
Microsoft Certified Azure Administrator Associate
Microsoft Certified Azure Al Engineer Associate
Microsoft Certified Azure Data Engineer Associate
Microsoft Certified Azure Data Scientist Associate
Microsoft Certified Azure Developer Associate
Microsoft Certified Azure Fundamentals
Microsoft Certified Azure Security Engineer Associate
Microsoft Certified Azure Solutions Architect
Microsoft Certified Azure Solutions Architect Expert
Microsoft Certified DevOps Engineer Expert
Microsoft Certified Professional
Microsoft Certified Solutions Associate(all)
Microsoft Certified Power BI Data Analyst Associate
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IBM Certified Developer - Cognos Analytics

Microsoft Certified Solutions Associate: SQL 2016 DBA Microsoft Certified Solutions Associate: Windows Server 2012/2016 Microsoft Certified Solutions Developer (MCSD) Microsoft Certified Dynamics 365 Associate(all business Microsoft Certified Solutions Expert: Data Platform Microsoft Certified Solutions Expert: Desktop Infrastructure Microsoft Certified Trainer (MCT) Microsoft MTA: Windows OS Microsoft Office Specialist Mile2 Certified Cloud Security Officer(C)CSO) MIT CSAIL Professional Certificate in Al and Machine MIT Professional Certificate in Machine Learning & AI Mongo DB Associate Data Modeler Mongo DB Certified DBA Mongo DB Certified Developer MongoDB Certified Developer Associate NetApp Certified Data Administrator, ONTAP (NCDA) NetApp Certified Hybrid Cloud Architect NetApp Certified Implementation Engineer (NCIE) NetApp Certified Storage Associate - Hybrid Cloud NetScout/nGenius Certified Analyst (nCA) NetScout/nGenius Certified Associate (nCA) NetScout/nGenius Certified Expert (nCE) NetScout/nGenius Certified Specialist (nCS) Novell Certified Administrator (CNA) Novell Certified Novell Engineer (CNE) Novell Certified Instructor Novell Certified Linux Engineer (Novell CLE) Novell Certified Linux Professional (Novell CLP) Novell Identity Manager Administrator Offensive Security Defense Analyst (OSDA) Offensive Security Defense Security Expert Offensive Security Certified Expert Offensive Security Experienced Penetration Tester Offensive Security Exploit Developer (OSED) Offensive Security Exploitation Expert (OSEE) Offensive Security Professional (OSCP) Offensive Security Web Assessor (OSWA) Offensive Security Web Expert (OSWE) Offensive Security Wireless Professional (OSWP) Okta Certified Administrator Okta Certified Consultant Okta Certified Developer

Okta Certified Professional

UNIX and Windows

Foote Partners, LLC Foote Research Group

648 Tech Certifications Reported

Foote Partners News Release – July 22, 2025

Open Group Certified Architect (Open CA)
Open Group Certified IT Specialist (Open CITS)
Oracle Business Intelligence Foundation Suite 11G Certified
Implementation Specialist

Oracle Certified Associate - DBA (OCA)

Oracle Certified Associate - Java SE 8 Programmer

Oracle Certified Associate - MySQL Heatwave

Oracle Certified Associate - WebLogic Server 12c Admin

Oracle Certified Expert - Java SE Developer

Oracle Certified Expert - MySQL 5.1 Cluster Database Administrator

Oracle Certified Expert - Siebel CRM Business Analyst
Oracle Certified Expert - Solaris 10 Network Administrator for
Solaris

Oracle Certified Master - DBA (OCM)

Oracle Certified Master - Java EE Enterprise Architect

Oracle Certified Master - Java SE Developer

Oracle Certified Professional - Advanced PL/SQL Developer

Oracle Certified Professional - Application Server Administrator

Oracle Certified Professional - Database Cloud Administrator Oracle Certified Professional 2019 - DBA(OCP)

Oracle Certified Professional - Fusion Middleware 11g/12c Forms Developer

Oracle Certified Professional - Java EE Web Component Developer

Oracle Certified Professional - Java EE Web Services
Developer

Oracle Certified Professional - Java SE Programmer Oracle Certified Professional - MySQL 8.0 Database Administrator

Oracle Certified Professional - MySQL 5.x Developer Oracle Certified Professional - Solaris 10 Systems Administrator

Oracle Certified WebLogic Server 12c Administrator
Oracle Cloud Infrastructure 2022/2023 Certified Architect
Professional

Oracle Database PL/SQL Developer Certified Professional Oracle E-Business Suite 12 Certified Implementation Specialist

Oracle Linux Certified Administrator (OCA)

Oracle MySQL 8.x Database Developer Certified Professional

Oracle PL/SQL Developer Associate

Oracle SOA Suite 12c İmplementation Specialist

Oracle VM 3.0 for x86 Certified Implementation Specialist

Pegasystems Certified Data Scientist

Pegasystems Certified Decisioning Consultant Pegasystems Certified Lead System Architect Pegasystems Certified Senior Systems Architect

Pegasystems Certified System Architect

Pegasystems Certified Pega Business Architect Pegasystems Certified Robotics System Architect

PHP Certification

Pivotal Application Architect

Pivotal Cloud Foundry Operator certification

Pivotal Developer

PMI Agile Certified Practitioner (PMI-ACP)

PMI Certified Associate in Project Management (CAPM)

PMI Portfolio Management Professional (PfMP)

PMI Professional in Business Analysis (PMI-PBA)

PMI Program Management Professional (PgMP)

PMI Project Management Professional (PMP)

PMI Risk Management Professional (PMI-RMP)

Prince2 Foundation

Prince2 Practitioner

Professional Certified Investigator

Professional in Project Management (GAQM)

Qlik Sense Business Analyst Qlik Sense Data Architect

Qualified Information Security Professional Q/ISP

Rackspace Certified Technician Red Hat Certified Architect (RHCA)

Red Hat Certified Architect: Cloud

Red Hat Certified Architect: Enterprise Applications

Red Hat Certified Architect: Infrastructure

Red Hat Certified Engineer (RHCE)

Red Hat Certified Enterprise Application Developer

Red Hat Certified Specialist in Business Process Design

Red Hat Certified Specialist in Cloud Infrastructure

Red Hat Certified Specialist in Linux Performance Tuning

Red Hat Certified Specialist in Messaging Administration

Red Hat Certified Systems Administrator (RHCSA) RSA Certified Administrator (RSA/CA)

RSA Certilled Administrator (RSA/C/

RSA Certified Instructor (RSA/CI)

SAFe Certification

Salesforce B2C Commerce Developer

Salesforce Certified Administrator

Salesforce Certified Advanced Administrator

Salesforce Certified Application Architect

Salesforce Certified Data Architect

Salesforce Certified Hyperautomation Specialist

Salesforce Certified Integration Architecture Designer Salesforce Certified Platform Developer

Salesforce Certified Systems Architect
Salesforce Certified Technical Architect

Salesforce Certified User Experience Designer

Salesforce Identity and Access Management Architect

Salesforce Platform App Builder

9.4

SAS Certified Big Data Professional Using SAS 9

SAS Certified Data Integration Developer for SAS 9

SAS Certified Data Scientist Using SAS 9

SAS Certified Platform Administrator for SAS 9

SAS Certified Predictive Modeler - SAS Enterprise Miner SAS Certified Professional: Advanced Programming/SAS

SAS Certified Specialist Base Programming/SAS 9.4

SAS Certified Specialist: Natural Language Processing and Computer Vision

SAS Certified Statistical Business Analyst - SAS 9

SAS Certified Advanced Analytics Professional Using SAS

SAS Certified Data Quality Steward for SAS®

SAS Certified Professional: Al and Machine Learning

SAS Certified Professional: Data Curation for SAS Data
Scientists

SAS Certified Specialist: Visual Business Analytics ServiceNow Certified Application Developer (CAD)

ServiceNow Certified Implementation Specialist (CIS) ServiceNow Certified Systems Administrator (CSA)

Siebel 8 Consultant Certified Expert

Six Sigma Black Belt

Six Sigma Green Belt

Six Sigma Master Black Belt

Six Sigma Yellow Belt

SNIA Certified Storage Architect

SNIA Certified Storage Networking Expert (SCSN-E)

SNIA Certified Storage Professional

SNIA Certified Systems Engineer Sniffer Certified Expert

SolarWinds Certified Professional (SCP)

SonicWall Network Security Administrator

Splunk Core Certified User

SUSE Certified Administrator

SUSE Enterprise Engineer (SCE)

SUSE Enterprise Architect or (SEA)

Systems Security Certified Practitioner (SSCP)
Tableau Desktop Certified Professional

Tableau Server Certified Professional Teradata VantageCloud Lake Associate Certified

Teradata Vantage Administration

Teradata Vantage Data Engineering Certified

Teradata Vantage Data Engineering Cer Teradata Vantage Data Science Master

Teradata Vantage Master 2.0 Teradata Vantage Architecture

Teradata Vantage Analytics

Teradata SQL for Business Users

TIBCO Certified Professional

TIBCO Certified SOA Architect

TOGAF 9 Certified

Virtualization Council Master Infrastructure Architect VMware Certified Advanced Professional - Digital Workspace

VMware Certified Advanced Professional 6.5 - Data Center Virtualization Design

VMware Certified Advanced Professional – Network Virtualization

VMware Certified Advanced Professional (all)

VMware Certified Advanced Professional 6 - Data

Center Virtualization Deployment VMware Certified Advanced Professional 6/7 - Cloud

Mgt and Automation Deployment VMware Certified Advanced Professional 6/7 - Cloud Mgt

and Automation Design

VMware Certified Design Expert – Network Virtualization

VMware Certified Design Expert - Cloud Mgt and

Automation
VMware Certified Design Expert (all)

VMware Certified Design Expert 6 - Data Center

Virtualization VMware Certified Professional - Digital Workspace

VMware Certified Professional – Desktop Management 2021

VMware Certified Professional - Network Virtualization VMware Certified Professional - Security 2021

VMware Certified Professional 6 - Data Center

Virtualization (VCP6-DCV)
VMware Certified Professional 6.5 - Data Center
Virtualization (VCP6.5-DCV)

VMware Certified Professional 6/6.5

VMware Certified Professional 6/7 - Cloud Mgt and Automation

VMware Certified Technical Associate - Data Center Virtualization

Zachman Certified - Enterprise Architect

Foote Partners News Release – July 22, 2025

4-YEAR IT CERTIFICATIONS PAY TRENDS

(Through 7/1/2025 – 106,642 IT Professionals)

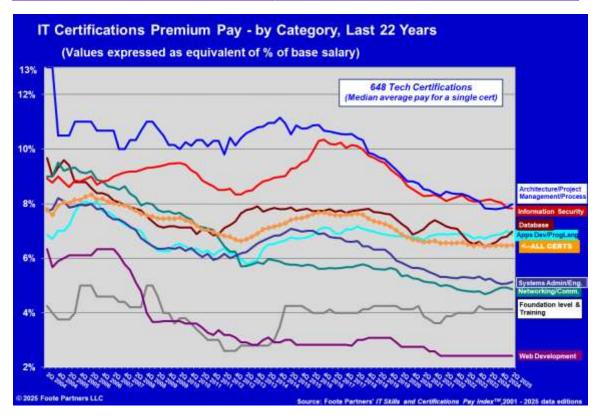
17-YEAR IT CERTIFICATIONS PAY TRENDS BY CATEGORY

% Change in Average Median Pay for a Single IT Certification)

(Through 7/1/2025 – 106,642 IT Professionals)

SOURCE: Foote Partners 2025 IT Skills & Certifications Pay Index™

| | | Change in Average Premium Pay by Category | | | | | | |
|-----------------------------------------|---------------------|-------------------------------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--|
| IT CERTIFICATIONS CATEGORIES | # of certs surveyed | % Change 3 mos | % Change 6 mos | % Change ANNUAL | % Change 2 yrs | % Change 3 yrs | % Change 4 yrs | |
| Training and Beginner/Foundation level | 8 | 0.0% | 0.0% | 0.0% | 3.1% | 6.5% | 6.5% | |
| Apps Development/Prog. Languages | 74 | -2.2% | -0.6% | 0.7% | -0.1% | -0.4% | 2.9% | |
| Data/Database | 65 | 2.5% | 3.2% | 7.0% | 5.4% | -2.8% | -1.4% | |
| Web Development | 12 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -12.1% | |
| Networking & Communications | 105 | -1.1% | -1.1% | 2.8% | 1.8% | -2.8% | -5.3% | |
| System Administration/Engineering | 131 | 1.2% | 1.5% | -2.2% | -3.1% | -3.3% | -8.4% | |
| Information/Cyber Security | 156 | -0.2% | -2.7% | -4.2% | -4.0% | -3.4% | -5.4% | |
| Architecture/Project Management/Process | 97 | 1.3% | 1.8% | 2.1% | -3.6% | -5.5% | -6.4% | |
| ALL CERTIFICATIONS REPORTED | 648 | 0.22% | 0.05% | 0.22% | -0.48% | -1.21% | -1.67% | |



Pay data supporting these charts available in the <u>IT Skills and Certifications Pay IndexTM</u> – 2Q 2025 data edition

HIGHEST PAYING IT Certifications (cash pay premiums for all 648 certs surveyed, ranked)

These IT certifications are among those earning the highest pay premiums (data collected April 1, 2025 to July 1, 2025). Shown in alphabetical order by overall rank in descending order including ties. Green/Red = increased/decreased in market value this guarter. Purple = Made the list this guarter for the first time.

1. GIAC Security Leadership

2.[Tie]GIAC Strategic Planning, Policy, and Leadership

Offensive Security Certified Expert

Zachman Certified - Enterprise Architect

3.[Tie] Artificial Intelligence Engineer (AIE - all tracks)

Certificate of Cloud Security Knowledge

Certified Secure Software Lifecycle Professional

Certified Software Quality Manager

EC-Council Certified Chief Information Security Officer

InfoSys Security Engineering Professional (ISSEP/CISSP)

InfoSys Security Management Professional (ISSMP/CISSP) MIT CSAIL Professional Certificate in AI and Machine

Learning

Offensive Security Certified Professional

Offensive Security Experienced Penetration Tester

4.[Tie] AWS Certified DevOps Engineer - Professional

Certification of Capability in Business Analysis

Certified Artificial Intelligence Scientist

Certified Cloud Security Professional

Certified Enterprise Coach (Scrum/Agile)

Certified in Governance, Risk and Compliance

Certified in Risk and Information Systems Control

Certified in the Governance of Enterprise IT

Certified Information Privacy Manager- all countries

Certified Information Security Manager

Certified Information Systems Security Professional

Certified Professional Scrum Product Owner

Certified Scrum Product Owner - Advanced

Certified ScrumMaster - Advanced CyberSecurity Forensic Analyst

4.[cont.] EC-Council Certified Threat Intelligence Analyst

GIAC Certified Incident Handler

GIAC Certified Intrusion Analyst

IBM Applied AI Engineering Professional Certificate

InfoSvs Security Architecture Professional (ISSAP/CISSP)

Offensive Security Defense Security Expert

Offensive Security Exploitation Expert

Offensive Security Web Expert

Oracle Cloud Platform Application Integration Certified

Professional

Pegasystems Certified Data Scientist

Pegasystems Certified Lead System Architect

PMI Project Management Professional

PMI Risk Management Professional

SAS Certified Professional: Al and Machine Learning

Six Sigma Black Belt

Six Sigma Master Black Belt

Teradata Vantage Data Science Master

5.[Tie]AWS AWS Certified Security - Specialty

BTA Certified Blockchain Security Professional

Certificate of Cloud Auditing Knowledge

Certified Artificial Intelligence Practitioner

Certified Business Continuity Manager/ISO 22301

Certified Business Continuity Professional

Certified Business Process Leader

Certified Compliance & Ethics Professional

Certified Ethical AI Professional

Certified Forensic Computer Examiner

Certified Information Privacy Technologist- all countries

Certified Information Systems Auditor

Certified Information Systems Risk Manager/Mile2

Certified Kubernetes Security Specialist

Certified Penetration Testing Engineer

Certified Scrum Professional - ScrumMaster

Certified ScrumMaster

5. [cont.] Check Point Certified Security Administrator

Cisco Certified Network Professional - Security

EC-Council Certified Cloud Security Engineer

EC-Council Certified SOC Analyst

EC-Council Web Application Hacking and Security Testing

GIAC Certified Forensics Analyst

GIAC Experienced Cyber Security

GIAC Security Operations Manager

Google Certified Professional Cloud Architect

Google Professional Cloud Developer

IAPP Certified Information Privacy Manager

IBM AI Engineering Professional Certificate

IBM Certified Data Architect - Big Data

IBM Certified Solution Advisor - DevOps V2

Mile2 Certified Cloud Security Officer(C)CSO)

Offensive Security Defense Analyst

Open Group Certified Architect

Oracle Certified Expert - Java SE Developer (all)

Oracle Certified Master - DBA

Oracle Certified Master - Java SE Developer

Pegasystems Certified Senior Systems Architect

Pivotal Application Architect

PMI Portfolio Management Professional

PMI Professional in Business Analysis

PMI Program Management Professional

Prince2 Practitioner

Red Hat Certified Specialist in Business Process Design

SAFe Certification

SAS Certified Data Scientist Using SAS 9

SAS Certified Specialist: Natural Language Processing and

Computer Vision

Pay data supporting these charts available in the IT Skills and

Certifications Pay Index™ – 2Q 2025 data edition



IT CERTIFICATION PAY TREND HIGHLIGHTS: Market Value Gainers & Highest Paying – 2nd Quarter 2025 data

These tech certifications gained 10% or more in market value in the three months ending July 1, 2025 vs. prior quarter (seen below grouped by segment). Listed in alphabetical order within each group. Highest paying skills listed on right in alphabetical order.

IT CERTIFICATION Gainers

Info/Cyber Security certifications

Certificate of Cloud Security Knowledge (CCSK)

CyberSecurity Forensic Analyst (CSFA)

Fortinet Network Security Expert (NSE - all levels)

Fortinet Network Security Professional

GIAC Certified Intrusion Analyst (GCIA)

GIAC Security Essentials (GSEC)

Offensive Security Certified Professional (OSCP)

Offensive Security Defense Security Expert (OSSD)

Offensive Security Experienced Penetration Tester (OSEP)

Offensive Security Exploitation Expert (OSEE)

Okta Certified Professional

Systems Administration certifications

IBM Certified Systems Administraton: WebSphere Application Server Network Deployment

IBM Certified Systems Administrator (all)

Linux Foundation Certified Engineer

Linux Foundation Certified System Administrator

Linux Professional Institute certification (LPIC-Level 2)

Linux Professional Institute certification (LPIC-Level 3)

NetApp Certified Data Administrator, ONTAP (NCDA)

Oracle Linux Certified Administrator (OCA)

Red Hat Certified Architect (RHCA)

Red Hat Certified Architect: Cloud

Red Hat Certified Engineer(RHCE)

ServiceNow Certified Systems Administrator (CSA)

SUSE Certified Administrator

SUSE Enterprise Architect (SEA)

SUSE Enterprise Engineer (SCE)

VMware Certified Professional 6/7 - Cloud Mgt and Automation

Application Development/Programming Languages certifications

Adobe/Magento 2 Certified Developer-Associate Adobe/Magento 2 Certified Developer-Professional AWS Certified DevOps Engineer - Professional Salesforce Certified Application Architect

Networking & Communications certifications

Brocade Certified Fabric Professional (BCFP)

Brocade Certified Network Professional

Juniper Networks Certified Specialist (JNCIS - all specializations) VMware Certified Advanced Professional – Network Virtualization

VMware Certified Professional - Network Virtualization

Data/Database certifications

IBM Certified Data Architect - Big Data

IBM Certified Data Engineer - Big Data

IBM Certified Solution Advisor - Blockchain Platform V2

Microsoft Certified Azure Data Analyst Associate

Microsoft Certified Azure Data Engineer Associate

Microsoft Certified Azure Data Scientist Associate

Oracle Certified Associate - DBA (OCA)

Oracle Certified Professional 2019 - DBA (OCP)

Qlik Sense Data Architect

Teradata Vantage Administration

Teradata Vantage Analytics

Teradata Vantage Architecture

Teradata Vantage Data Engineering Certified

Teradata Vantage Data Science Master

Teradata VantageCloud Lake Associate Certified

Architecture, Project Management, and Process

Certifications

Certified Business Analysis Professional (CBAP)

Certified Scrum Trainer

IBM AI Engineering Professional Certificate

IBM Applied Al Engineering Professional Certificate

ITIL Foundation Certification

Microsoft Certified: DevOps Engineer Expert

PMI Program Management Professional (PgMP)

PMI Project Management Professional(PMP)

Prince2 Foundation

Prince2 Practitioner

SAS Certified Specialist: Natural Language Processing and

Computer Vision

SAS® Certified Specialist: Visual Business Analytics

Six Sigma Black Belt

Six Sigma Green Belt

Six Sigma Master Black Belt

Source: Foote Partners IT Skills & Certifications Pay Index™. 2Q 2025 data edition

IT CERTIFICATION PAY TREND HIGHLIGHTS: Market Value Losers – 2nd Quarter 2025 data

These IT certifications declined 10% or more in market value in the three months ending July 1, 2025 vs. prior quarter (seen below grouped by segment). Listed in alphabetical order within each group.

TECH CERTIFICATIONS Losers

Application Development/Programming Languages

Oracle Certified Master - Java SE Developer Oracle Certified Professional - Fusion Middleware 11g/12c Forms Developer

Oracle Certified Professional WebLogic Server 12c
Administrator

Oracle E-Business Suite 12 Certified Implementation Specialist Pegasystems Certified Pega Business Architect Pegasystems Certified Senior Systems Architect

Red Hat Certified Architect: Infrastructure

Salesforce Certified Hyperautomation Specialist

Salesforce Certified Systems Architect

Salesforce Platform App Builder

SAS Certified Professional: Advanced Programming/SAS 9.4 SAS Certified Specialist Base Programming/SAS 9.4

Data/Database certifications

SAS Certified Predictive Modeler - SAS Enterprise Miner SAS Certified Statistical Business Analyst - SAS 9 SAS Certified Advanced Analytics Professional Using SAS 9 SAS Certified Professional: Al and Machine Learning SAS Certified Professional: Data Curation for SAS Data Scientists

Systems Administration certifications AWS Certified SysOpsAdministrator-Associate (Cloud)

Microsoft Certified Azure Solutions Architect
Microsoft Certified Azure Solutions Architect Expert
Microsoft Certified Solutions Associate(all)
Microsoft Certified Solutions Expert: Server
Infrastructure
Red Hat Certified Systems Administrator (RHCSA)
Salesforce Certified Advanced Admnistrator
VMware Certified Advanced Professional 6 - Data Center
Virtualization Deployment

Networking and Communications

AWS Certified Advanced Network - Specialty Cisco Certified Design Expert (CCDE) Cisco Certified Network Associate - Data Center Cisco Certified Network Associate (CCNA Routing and Switching)

Cisco Certified Network Associate (was CCNA Wireless) Cisco Certified Network Associate (was Design Associate)

Cisco Certified Network Professional - Data Center Cisco Certified Network Professional - Enterprise/Routing and Services

CWNP/Certified Wireless Network Expert (CWNE) Juniper Networks Certified Associate (JNCIA - all specializations)

Info/Cyber Security certifications

Certified Data Privacy Solutions Engineer(CDPSE-ISACA)

Cisco Certified CyberOps Associate

Cisco Certified CyberOps Professional

Cisco Certified Network Professional - Security

CompTIA Security+

EC-Council Certified Ethical Hacker (CEH)

Fortinet Certified Expert in Cybersecurity (FCX)

GIAC Cloud Security Automation (GCSA)

GIAC Experienced Forensic Analyst(GX-FA)

GIAC iOS and MacOS Examiner

GIAC Web Application Penetration Tester (GWAPT)

Google Cloud - Professional Cloud Security Engineer

Systems Security Certified Practitioner (SSCP)

<u>Architecture, Project Management, and Process</u> <u>Certifications</u>

PMI Portfolio Management Professional (PfMP) Salesforce Certified Technical Architect Salesforce Certified Integration Architecture Designer TOGAF 9 Certified

Source: Foote Partners IT Skills & Certifications Pay IndexTM. 2Q 2025 data edition



2025 IT Skills & Certifications Pay Volatility Index™

Demand dynamics in benchmarked certified and non-certified IT skills pay

(Data collected through July 1, 2025)

What is skills and certifications pay volatility?

Skills volatility is defined as the incidence of gains or declines in premium pay earned by tech professionals for specific certified and noncertified technical and business skills. Tracking volatility is useful for both analyzing and forecasting demand for skills, for monitoring IT workforce transition, and for understanding IT management decision making. Volatility offers valuable insights that salary movements and hiring behavior do not. Important in this distinction is that skills can be segmented and benchmarked more meaningfully than jobs. Similar to IT positions, there are the broad categories (e.g., security, networking, systems, database, applications development). But also, more narrow areas, for example---web/e-commerce development, storage area networking, virtualization, architecture, business process, project management, methodology. But unlike most jobs, within categories or niche are very specific vendor-specific or vendor independent niches and skill specializations that provide more granular analysis (e.g., SAP, AJAX, Ruby on Rails, Microsoft Sharepoint, collaboration appliances, Oracle database).

Foote Partners News Release - July 22, 2025

TRENDS

Cash Pay Premium Volatility for IT Skills and Certifications

Pay volatility in market value for individual IT skills and certifications---defined as incidence of gains or declines over a period of time in premium pay earned by IT professionals for specific technical and business skills---displayed a dramatically decrease from April 1, 2025 to July 1, 2025 to compared to the prior quarter according to the latest update of Foote Partners' long-running *IT Skills and Certifications Pay Index*TM of market values for tech skills. Market value is measured by tracking additional cash compensation paid to workers by their employers for specific certified and non-certified skills they possess.

Current Quarterly Recap (data collected through July 1, 2025)

TOTAL: All Skills and Certifications

- 28.2% of skills and certifications (386 of 1,371) recorded a change in cash pay this quarter, virtually unchanged from 28% in the prior quarter, when 379 of 1,371 changed. This was higher than the 26.4% average quarterly pay volatility over the last two years.
- **190** gained value while **196** declined in value in 2nd Quarter 2025, similar to the 177 and 202 vectors, respectively, in the 1st quarter.

CERTIFIED SKILLS

- 18.7% of reported certifications(121 of 648) changed value in 2nd Quarter 2025, a 2-point decrease compared
 to the 20.9% (134 of 640) pay volatility in the prior quarter and about the same as the 20.5% two-year average
 certifications pay volatility
- **67** certifications gained market value, while 54 declined in value, a significantly different trend from the 60 gains and 74 declines, respectively, in the prior guarter.

NONCERTIFIED SKILLS

- **36.7%** of reported IT skills (265 of 723) changed value in the 2nd Quarter 2025, a 2-point increase from the **34.3%** (245 of 714) pay volatility in the prior quarter.
- **123** noncertified skills gained market value, while 142 declined in value, in the 2nd Quarter 2025, compared to 117 and 128, respectively, in the prior quarter.

(Source: Foote Partners LLC, 2025 IT Skills & Certifications Pay IndexTM)

Tracking skills volatility is useful in many ways: analyzing and forecasting demand for skills; monitoring IT workforce transition; and understanding IT management decision making. In fact, we believe statistical volatility in IT skills pay offers a more complete story of true labor market conditions than salary movements and hiring behavior, among other common indicators. Important in this distinction is that skills can be segmented and benchmarked more meaningfully than jobs allowing microanalyses.

Similar to jobs, IT skills have broad skills categories that can be tracked (e.g., security, networking, systems, database, applications development). But unlike jobs, skills pay can be pinpointed to hundreds of niches and specializations. Also, unlike most job trends analyses, within skills categories and niches are *vendor-specific* and *vendor independent* skill specializations for more granular tracking, analysis, and forecasting.

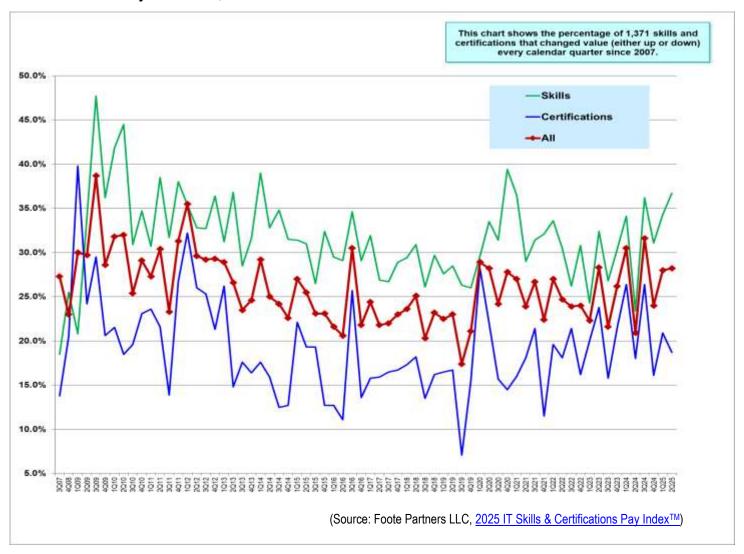
Quarterly volatility for all 1,371 certified and non-certified skills in the last two years has been widely variable, in the 21% to 31% range. This is an important shift trend that we believe signals a move that employers are taking a more long-term view to building their tech workforces for evolving technologies such as Al/Machine Learning and a variety of digital solutions. Tech leaders right now are demanding more agility, faster reaction times, and more predictable execution; this is keeping volatility high as skills markets constantly adjust to meet surges in demand for specific certified and non-certified skills.

They will be able to achieve those capabilities through applying architecture principles and practices to people management.

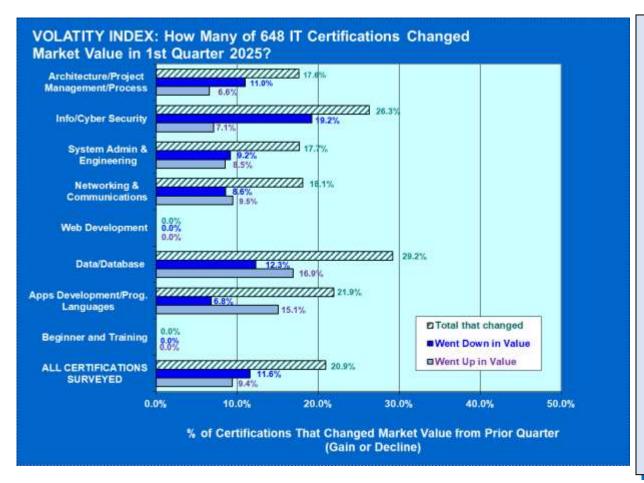


VOLATILITY HIGHLIGHTS - 18 Year Trending

IT Skills and Certifications Volatility Index™ – 1,371 Skills and Certifications



VOLATILITY HIGHLIGHTS IT Certifications – 2nd Quarter 2025 datasets



(Source: Foote Partners LLC, 2025 IT Skills & Certifications Pay Index™)

IT Skills and Certifications Volatility Index™
2Q 2025 data edition findings: Tech Certifications

IT Certifications Volatility Highlights

Among all 648 certifications reported in the prior quarter, highest quarterly volatility (>15%) occurred in these segments (ranked highest to lowest):

- Data/Database
- Applications Development/Programming Languages
- Architecture/PM/Process
- Systems Admin/Engineering

Within segments, notable downward volatility (value declines) occurred most in these (ranked):

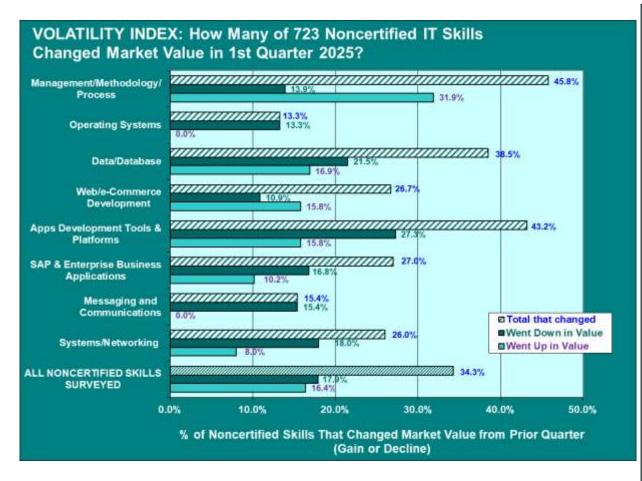
• Applications Development/Programming Languages

Within segments, notable upward volatility (value gains) occurred most in these:

 Applications Development/Programming Languages

(Pay data supporting these charts available in the <u>IT Skills and</u> <u>Certifications Pay IndexTM</u> – 2Q 2025 quarterly data edition)

VOLATILITY HIGHLIGHTS Non-certified IT Skills – 2nd Quarter 2025 datasets



(Source: Foote Partners LLC, 2025 IT Skills & Certifications Pay Index™)

IT Skills and Certifications Volatility Index[™] 2Q 2025 data edition findings: Non-certified IT

Non-certified IT Skill Pay Volatility Highlights

Among all 714 noncertified IT skills reported this quarter, high volatility (>20%) occurred in all segments (ranked highest to lowest):

- Operating Systems
- Management/ Methodology/Process
- Data/Database
- Applications Development Tools & Platforms
- Messaging and Communications
- SAP & Enterprise Business Applications
- Systems /Networking
- Web/Ecommerce Development
- Systems/Networking

Within segments, notable downward volatility (value declines) occurred most in these (ranked):

- Messaging and Communications
- Data/Database
- SAP & Enterprise Business Applications
- Applications Development Tools & Platforms

Within segments, notable upward volatility (value gains) occurred most in these (ranked):

- Operating Systems
- Management/ Methodology/Process
- Applications Development Tools & Platforms

(Pay data supporting these charts available in the <u>IT Skills and</u> <u>Certifications Pay Index™</u> – 2Q 2025 quarterly data edition)



2025 IT Skills and Certifications Pay Index™ (2nd Quarter 2025 datasets)

- Pay premiums for 1,371 certified and noncertified IT skills
 - Three data points for each position: 10th, 50th, 90th percentile
- Verified and validated IT skills pay data from 106,642 IT professionals at 4,722 employers in US and Canada
- Current data collected through July 1, 2025 (updated guarterly)
- Excel format data tables allowing for data loading into third-party data analytics tools from PayScale, MarketPay, PayFactors, CompAnalyst, WillisTowersWatson, Mercer, et. al.
- Certifications Guide containing basic information about surveyed IT certifications (pre-requisites; costs; test content; lab requirements, etc.)

Definition of IT skills premium pay

- Pay that IT workers receive for possessing high-value IT and business skills used on the job
- Given in the form of a bonus, or embedded in base salary to adjust for the presence of a dominant vendor or technology central to job performance (examples: Cisco Network Engineer, Python Software Engineer, Redhat Linux Systems Administrator, or SAP Developer.)
- Often used to adjust either base pay or total pay in situations where job title does not match actual on-the-job duties and responsibilities, and changing the job title is not an attractive option
- May be used as a reward, recruiting inducement, retention tool, or as a guide for creating consulting rate cards





ABOUT THIS RESEARCH

Foote Partners' primary research survey for tracking IT skills and certifications pay and supply/demand volatility is the industry-leading IT skills and Certifications Pay IndexTM (ITSCPI), launched in 1999, and the IT skills and Certifications Volatility Index, both updated every three months for the past 20 years. Data covering 456,795 tech professionals at 4,661 employers in 83 U.S. and Canada cities are reported for IT salaries and skills pay earned for 280 positions and 1,371 certified and noncertified technical and business skills. Verified and validated pay data for 105,273 tech workers has been included in the 1st Quarter 2025 data edition of the ITSCPI, compiled from data collected through April 1, 2025.

Demographics of the participating organizations for our latest update are as follows, measured most appropriately for the type of business, by revenues, assets, total premiums and operating budgets:

- 18% of participating organizations have \$5 billion+ in sales/\$15+ billion in total assets
- 28% of participating organizations earn more than \$1 billion in annual revenues or more than \$5 billion in total assets
- 46% of participating organizations have \$500+ million in sales/\$1+ billion in total assets/\$500+ million in premiums/\$500+ million operating budget (government, educational, not-for-profit)
- 54% of participating organizations fall in the SMB (small-to-medium sized business) segment, generally defined as organization under \$500 million in sales.
- [Public sector] 5% have operating budgets of \$500 million or more, [nonprofit/educational sectors] 4% with operating budgets \$100 million to less than \$500 million

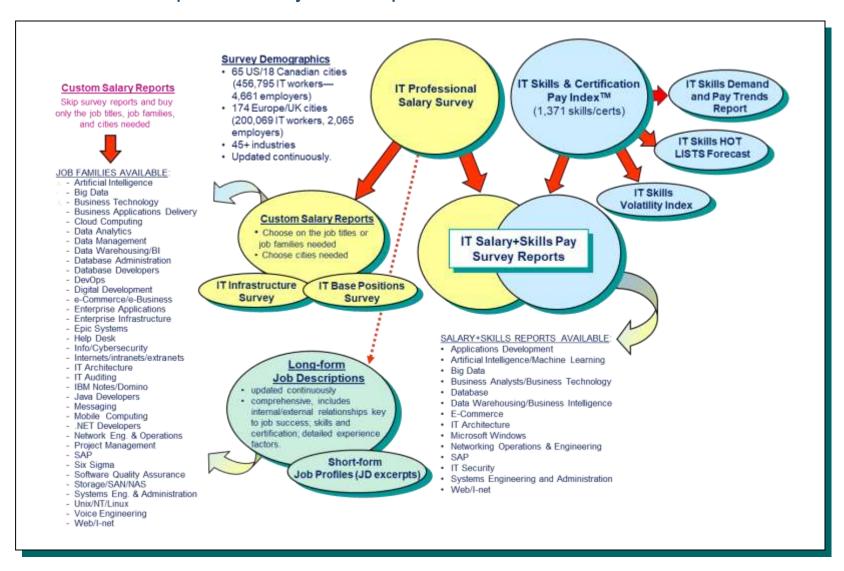
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Foote Partners 2025 IT Compensation Survey Product Map







ABOUT FOOTE PARTNERS

Foote Partners, LLC is a technology analyst firm and independent benchmark research organization focusing on the people (versus vendor) side of managing technology and the IT labor force. A thought leader and trusted advisor to thousands of employers on five continents who purchase our products and services, we provide benchmark data and pragmatic forward-thinking advice and market intelligence targeting the tech workforce in the modern highly integrated business/IT hybrid environment in which all private and public organizations now operate.

Our products are deeply grounded in specialized proprietary data-driven statistical and empirical research, benchmark surveys, and business intelligence collected from 4,661 North American employers with whom we have deep longstanding research partnerships. These partnerships have been created and supported specifically to enable unique market intelligence views and difficult-to-find decision support research on the multiple facets of IT human capital management. As a group, these U.S., Canadian, and European partners were selected to meet strict criteria for what we believe is the most meaningful demographic representation for tech professionals in each local labor markets.

Founded in 1997 and comprised of former Gartner industry analysts, McKinsey & Company, Mercer and WillisTowersWatson senior consultants, and former corporate HR, IT, and business executives, the firm's research division publishes 50+ quarterly-updated benchmarking, analytical research and forecasting products that help employers benchmark their IT compensation, solve difficult information technology management and workforce problems, and strengthen their ability to execute complex business solutions.

Foote Partners tech compensation survey findings and labor market trend analyses are featured regularly in countless business, HR, and IT media sources and periodicals around the globe, including *Bloomberg BusinessWeek, Forbes, Fortune, Wall Street Journal, New York Times, CIO Magazine, ComputerWorld,* and WorldatWork's *Journal* and *Workspan Magazine*; and in appearances on network and cable television, National Public Radio, and countless podcasts and webcasts.

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