# Software Development Engineer

SDE Training to Build the Talent Your Organization Needs

### Apprenticeship-as-a-Service

SkillStorm, a leader in workforce development, in partnership with Apprenti, is lowering the hurdles and training costs associated with building and expanding your technical workforce. We enable businesses to leverage apprenticeships on a smaller scale, developing and diversifying by hiring **new employees** or accelerating **current employees** into a job in tech.

## All the Benefits & Resources. None of the Administration & Program Management.



## **Upskill Your Workforce**

Our expert trainers provide a 16-week immersive, hands-on training leading to globally recognized certifications. Apprentices emerge equipped with job-ready skills, aligned with your company culture - increasing retention, diversity, and productivity.

### Software Development Engineer Cohort Starting June 2, 2025

Build a future-ready workforce by upskilling new and existing employees in software development. Our 16-week immersive program offers comprehensive training using official curriculum, labs, and certifications.

- Weekly Technical Exam
- Weekly Technical Interview
- Weekly Technical Presentation
- Three Enterprise-Level Projects



**Java:** Object-Oriented Programming, Collections, Multithreading, JUnit, Maven/Grade. SQL, NoSQL.

JavaScript & React: HTML/CSS, ES6, React Architecture, Unit Testing, React Router, Fetch API, Material UI, Internationalization (i18n).

**DevOps & Cloud:** AWS Cloud Concepts, AWS Services, CI/CD, Agile Fundamentals. Cloud Native Introduction.

**Spring:** Dependency Injection, Spring MVC, Spring Boot, REST Architecture.

## **Build Your Workforce Today**

Schedule a call to discover how our program increases diverse tech talent, cuts costs, and boosts retention.

# Software Development Engineer

Begins June 2. 16 Weeks. Virtual. 9am-6pm eastern. Fulltime 640 Hours.

#### **Curriculum:**

**Java (Week 1-6):** JDK. Object-Oriented Programming (OOP). Control Flow. Strings and Arrays. Packages and Modules. Object-Oriented Design (OOD). Processes and Threads. I/O Streams. Libraries for Parsing CSV, JSON, XML. Java 8 Concepts. Logging. Debugger and Troubleshooting in IDE. Maven/Gradle. Managing Libraries and Dependencies. JUnit/TestNG Tests. TDD. Agile and Scrum. Pair Programming. Git and GitHub. Branch, Fetch, Rebase, Stash, Revert, Config. Pull Requests, GitHub Pages and Documentation, Code Reviews. Resolving Merge Conflicts.

**Spring (Week 7-10):** Spring Framework, Dependency Injection, Annotation-based Configuration. Spring MVC, Spring Boot, Spring Data, REST Architecture, Spring Security. API Development with Spring. Swagger. REST APIs. HTTP GET, POST, PUT, DELETE. HTTP Request and Response. Response Status Codes.

**Web Development & React (Week 11-14):** HTML. CSS. Responsive Web Design. CSS Flexbox. JavaScript. Arrays, Conditionals, and Loops. Objects and Functions. DOM and Events. React, Function-based Components. State and Props. Hooks, Redux, Flux Pattern. Axios. Material UI and Internationalization (i18n).

**Data Structure & Algorithms (Week 15):** Collections and Generics. Data Structures. Array, Stack, Queue, LinkedList, Trees, Graphs, HashMap. Big O Notation. Linear, Quadratic, Logarithmic, Exponential, and Constant Complexity. Recursion. Hash Tables and Binary Search Trees. Fundamental Data Structures. Implementing Sorting Algorithms. Exception Handling, Errors, Edge Cases, and Input Validation. Data Structures, Conditions, Loops, Variables, Functions, Object Oriented Design (OOD), DRY/SOLID Principles.

**Cloud Native Introduction (Week 16):** AWS Overview. Cloud Computing. AWS Well-Architected Framework. CI/CD Pipelines. Microservice Architecture. Testing. Distributed Systems and Cloud. Eventual Consistency. Vertical and Horizontal Scaling. Messaging and Event-Driven Architecture.

Training costs are covered by Apprenti (approx. \$15,000 value). A \$3,500 per apprentice management fee applies for management and administrative tasks provided including program registration, support, and all reporting for the US DOL.

*Each apprentice must have a computer capable of supporting virtualization.* 

- RAM: minimum 12 GB
- Storage: Sufficient space for major development applications
- OS: Windows preferred (No Chromebooks)

#### **Projects:**

- Weekly Technical Exam
- Weekly Technical Interview
- Weekly Technical Presentation
- Three Enterprise-Level Projects

#### **Certifications:**



Oracle Certified Foundations Associate - Java



AWS Cloud Practitioner

**Schedule a call** to discover how our program increases diverse tech talent, cuts costs, and boosts retention.