



techventive.io
US Engineering Studio

Cohort enrolling now

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SOFTWARE ENGINEER BOOTCAMP

Software *Engineer*

6 weeks · Beginner+ to Intermediate · live + recorded

A hands-on software engineering curriculum covering programming fundamentals, data structures & algorithms, system design, Git, testing, web fundamentals, backend, frontend, databases, and cloud deployment — delivered by senior US engineers who ship to production every day.

10

CORE MODULES

35+

PRACTICAL SKILLS

5+

PROJECT TRACKS

1:1

CAREER SUPPORT

The *production stack* you'll master

Each tool taught with the workflows and failure modes practitioners actually meet on the job.

01

Python

Production Python

02

JavaScript

ES2024 + TypeScript

	03 React Frontend framework
	04 Node.js Backend runtime
	05 PostgreSQL Relational DB
	06 Git Version control
	07 Docker Containerization
	08 AWS Cloud deployment
	09 REST/GraphQL API design
	10 Pytest/Jest Testing

Foundation *modules*

First half of the curriculum – core fundamentals and the most common day-to-day skills.

01 Programming Fundamentals Variables, types, control flow, functions, scope, recursion, mental models — taught in Python and JavaScript side by side.
02 Data Structures & Algorithms Arrays, linked lists, hash maps, trees, graphs, sorting, searching, Big O analysis, common interview patterns.
03

Git & Collaboration

Git internals, branching strategies, pull requests, code review etiquette, GitHub Flow, conflict resolution.



Web Fundamentals

HTTP, REST, browsers, DOM, HTML5, CSS, responsive design, accessibility, the rendering pipeline.



Frontend with React

Components, hooks, state management, routing, fetching, forms, testing with Jest + React Testing Library.

Freshers

Build a real portfolio and land your first SWE role.

Self-Taught Devs

Plug the gaps in DS&A, system design, and production engineering.

Career Switchers

Move from non-IT or adjacent fields into software engineering.

Junior Devs

Level up from tutorials to production-grade engineering.

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Advanced *modules*

Second half – production patterns, real-world operations, and the senior-level depth.

06

Backend with Node.js

Express, REST API design, middleware, authentication (JWT), error handling, async patterns, OpenAPI specs.

07

Databases

Relational modeling, PostgreSQL, migrations, query optimization, indexes, transactions, ORM vs. raw SQL.

08

Testing & Quality

Unit, integration, and end-to-end tests, TDD basics, mocking, code coverage, CI integration.

09

System Design Basics

Scalability, load balancing, caching, database choice, queues, monoliths vs. microservices, system design interview prep.

Deployment to Cloud

Docker, AWS basics (ECS, RDS, S3, CloudFront), CI/CD with GitHub Actions, observability fundamentals.

🔑 Hands-on project outcomes

- Build and deploy a full-stack web app (React + Node + PostgreSQL).
- Pass DS&A coding interviews using the LeetCode patterns method.
- Write production-grade tests at unit, integration, and E2E levels.
- Design a small system end-to-end (system design interview format).
- Ship a CI/CD pipeline with GitHub Actions to AWS.
- Build a REST API with auth, error handling, and OpenAPI docs.
- Optimize a slow database query with proper indexing.
- Publish a GitHub portfolio with 3+ real projects.

🎓 Course learnings

- Programming fundamentals across Python and JavaScript.
- Full-stack development from frontend through cloud deployment.
- DS&A and system design for technical interviews.
- Engineering practices — testing, code review, CI/CD.
- Database design and query performance.
- Cloud deployment basics on AWS.

Career readiness, *built in.*

techventive.io turns this curriculum into job-ready positioning — project explanation, résumé and LinkedIn rewrites, GitHub portfolio polish, technical interview preparation, and placement-focused guidance through to the offer letter.

Software Engineer

Full Stack Developer

Backend Engineer

Frontend Engineer

Junior SDE

Web Developer

Freshers

Self-Taught Devs

Career Switchers

Junior Devs

Start your Software Engineer journey with techventure.io.

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