COURSE SYLLABUS

AI Software Engineering Bootcamp

Acquire the skills to design, build, and launch AI-powered applications in a structured, hands-on software engineering program.

For more information, visit https://www.creativelive.com/learning-path/ai-software-engineering-bootcamp



support@creativelive.com • 302-217-6585

Course Outline

This package includes these courses

- AI Coding Bootcamp with Claude Code (60 Hours)
- AI Coding for Product and UX (60 Hours)
- AI Coding for Security (60 Hours)
- AI Coding for Systems and Architecture (60 Hours)
- AI Coding Capstone (60 Hours)

AI Coding Bootcamp with Claude Code

Own the entire process of planning, building, and deploying real web applications with Claude Code in this beginner friendly, hands-on bootcamp featuring expert instruction, interactive practice, seven labs, and a capstone project.

- Put Claude Code to work planning, building, debugging, and deploying web applications through natural language
- Follow the Explore → Plan → Execute → Review workflow to tackle multi-step development tasks with confidence
- Develop full-stack apps equipped with databases, user authentication, and external API integrations
- Weave in responsive design, accessibility standards, and professional UI patterns
- Anchor your work in web security fundamentals including input validation and environment variable management
- Push finished applications to a live URL using version control and modern hosting platforms

AI Coding for Product and UX

Design a complete website with AI, then test it properly.

- Push AI past its generic defaults with specific visual references
- Use hierarchy, type, color, spacing, and layout to judge what AI produces
- Plan a site before you prompt, with a sitemap and user flows
- Create a design system that keeps every page consistent
- Refine the phone version, forms, interface states, interface copy, and motion
- Test your site with DevTools, accessibility tools, and a real person

AI Coding for Security

Discover how to secure applications and run production environments using modern development and AI security practices.

- Operate within team-based development workflows using version control and code review
- Set up continuous integration and deployment pipelines
- Track applications with observability and debugging tools
- Apply cybersecurity fundamentals and threat modeling techniques
- Handle authentication, authorization, and sensitive data securely
- Spot and reduce risks specific to AI-powered applications

AI Coding for Systems and Architecture

Grasp how modern applications are structured, scaled, and optimized through systems design and architecture principles.

- Bring core computer science concepts to real-world development challenges
- Design scalable systems using modern architecture patterns
- Work across networks, concurrency, and multi-language environments
- Build caching, queues, and background processing workflows
- Deploy applications with cloud infrastructure tools
- Tune performance and ensure system reliability

AI Coding Capstone

Finish a hands-on capstone project that demonstrates your ability to build and deploy AI-powered applications.

- Plan and carry out a full application build from concept to deployment
- Work with advanced AI-assisted development workflows and tools
- Weave AI-powered features into real-world applications
- Run production readiness reviews and testing
- Present technical work clearly through demos and documentation
- Ready a portfolio project for job applications