

AI Software Engineering Certificate Program (Self-Paced)

Gain the skills to design, build, and deploy AI-powered applications through a structured, hands-on software engineering program. Learn to build the way modern engineering teams do — with AI-assisted tools woven into the workflow from day one.

Group classes in Live Online and onsite training is available for this course. For more information, email corporate@nobledesktop.com or visit: <https://www.nobledesktop.com/certificates/ai-software-engineering-certificate>



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Course Outline

This package includes these courses

- AI Coding Fundamentals Course (Self-Paced) (60 Hours)
- AI Coding for Product & UX Course (Self-Paced) (60 Hours)
- AI Coding for Security Course (Self-Paced) (60 Hours)
- AI Coding for Systems & Architecture Course (Self-Paced) (60 Hours)
- AI Coding Capstone Course (Self-Paced) (60 Hours)

AI Coding Fundamentals Course (Self-Paced)

Build and deploy real web apps with Claude Code, GitHub, Next.js, and Supabase. Learn prompting, version control, full-stack development, debugging, and deployment through hands-on, project-driven training.

- Use Claude Code with confidence for real development tasks and multi-step coding workflows
- Prompt and guide AI effectively through context setting, Plan Mode, review, and recovery
- Handle version control with Git and GitHub, including branching, pull requests, and code review
- Grasp the fundamentals of modern web development, from HTML, CSS, and JavaScript to APIs
- Create full-stack applications powered by Next.js, databases, authentication, and external APIs
- Test, debug, secure, and launch production-ready applications to the live web

AI Coding for Product & UX Course (Self-Paced)

Turn product requirements into well-structured applications with AI-assisted workflows. Learn type-safe development, database and API design, UX research, and professional testing.

- Apply type-safe development practices with modern programming languages

- Design and build relational databases and structured data models
- Create and document APIs with proper versioning and error handling
- Carry out user experience research and put design systems into practice
- Turn product requirements into technical specifications
- Write and maintain professional-grade test suites

AI Coding for Security Course (Self-Paced)

Build secure, production-ready applications. Learn team development workflows, CI/CD, observability, threat modeling, authentication, and the security risks specific to AI-powered apps.

- Operate within team-based development workflows using version control and code review
- Set up continuous integration and deployment pipelines
- Monitor 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 & Architecture Course (Self-Paced)

Design scalable, reliable software systems. Apply computer science fundamentals, networking, and concurrency, and work with cloud infrastructure, caching, queues, and performance optimization.

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

AI Coding Capstone Course (Self-Paced)

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

- Plan and execute a full application build from concept to deployment
- Apply advanced AI-assisted development workflows and tools
- Integrate AI-powered features into real-world applications
- Conduct production readiness reviews and testing
- Present technical work clearly through demos and documentation
- Prepare a portfolio-ready project for job applications