aiengg.dev

AiEngg

AI System Design 2027 - POC to Production

AIENGG

Cohort Instructor

Gaurav Sen, Tanishq Singh

Primary Student Base

Software / AI Engineers

Program Overview



The Problem

90% of developers try and adopt AI, but only 15% successfully deploy systems that deliver ROI[1]. The gap often appears when prototypes meet production challenges such as agent orchestration, retrieval reliability, security, evaluation, deployment, observability, and scaling.

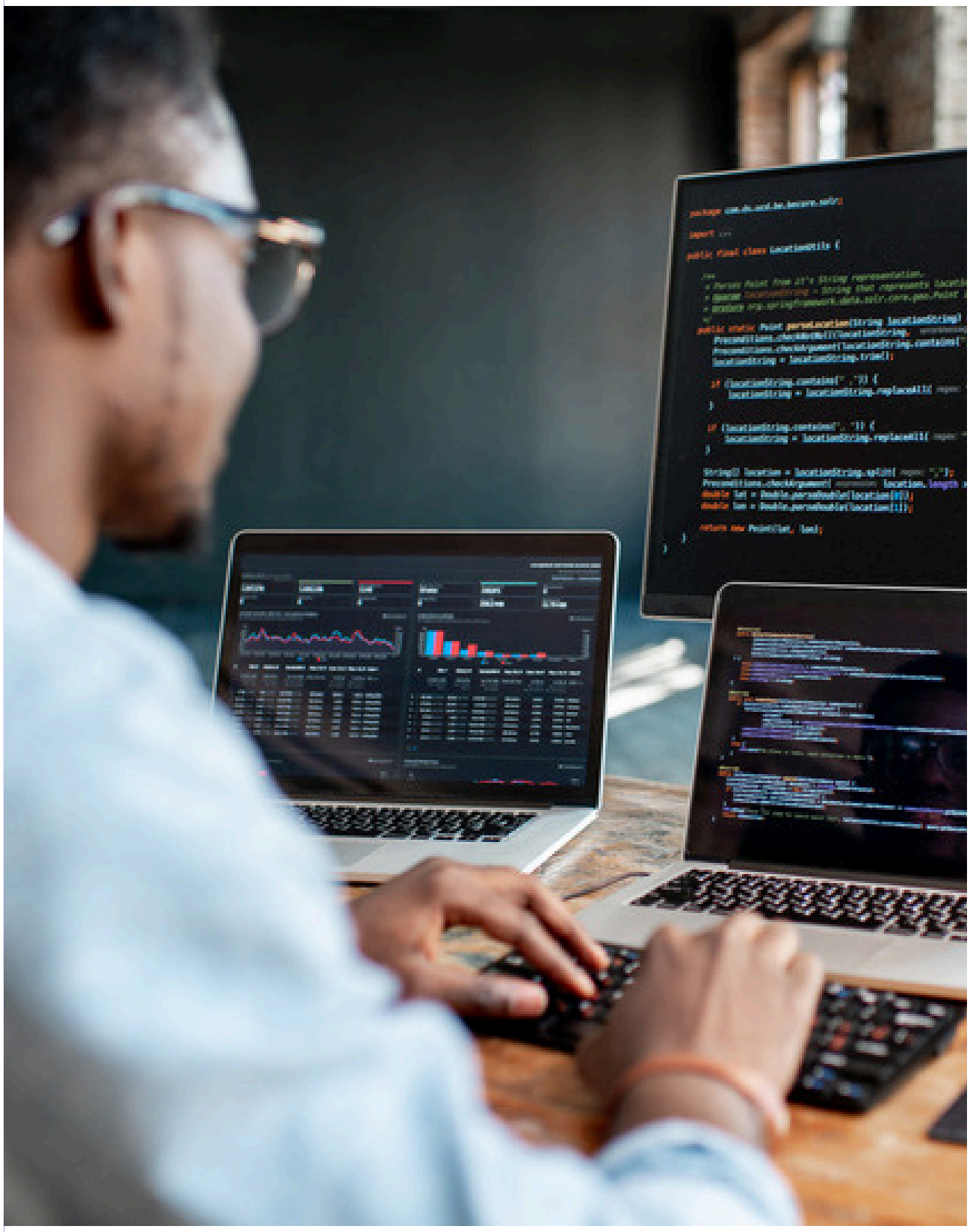
Addressing these challenges requires a system-level design perspective. This 6-week intensive cohort is designed to help software and AI engineers move from POC to production by building, evaluating, securing, deploying, and operating reliable AI systems.

The Solution

- A 6-week intensive cohort designed for software and AI engineers moving from POC to production
- Hands-on workshops on agentic systems, retrieval, evals, deployment, and observability
- Deep dive into production AI system design, security, CI/CD, scaling, and reliability
- Lifetime access to all recordings and course material post-cohort completion
- Attendance tracking on request, Wednesday office hours, and Certificate of Completion for all students

[1] Coderpad 5000+ Developer Survey

Program Highlights



12 Live Classes

in 6 weeks

AI System Design - POC to Production

production-focused curriculum

Hands-on Capstone Project

Production-grade AI system

Start Date: January 9th, 2027

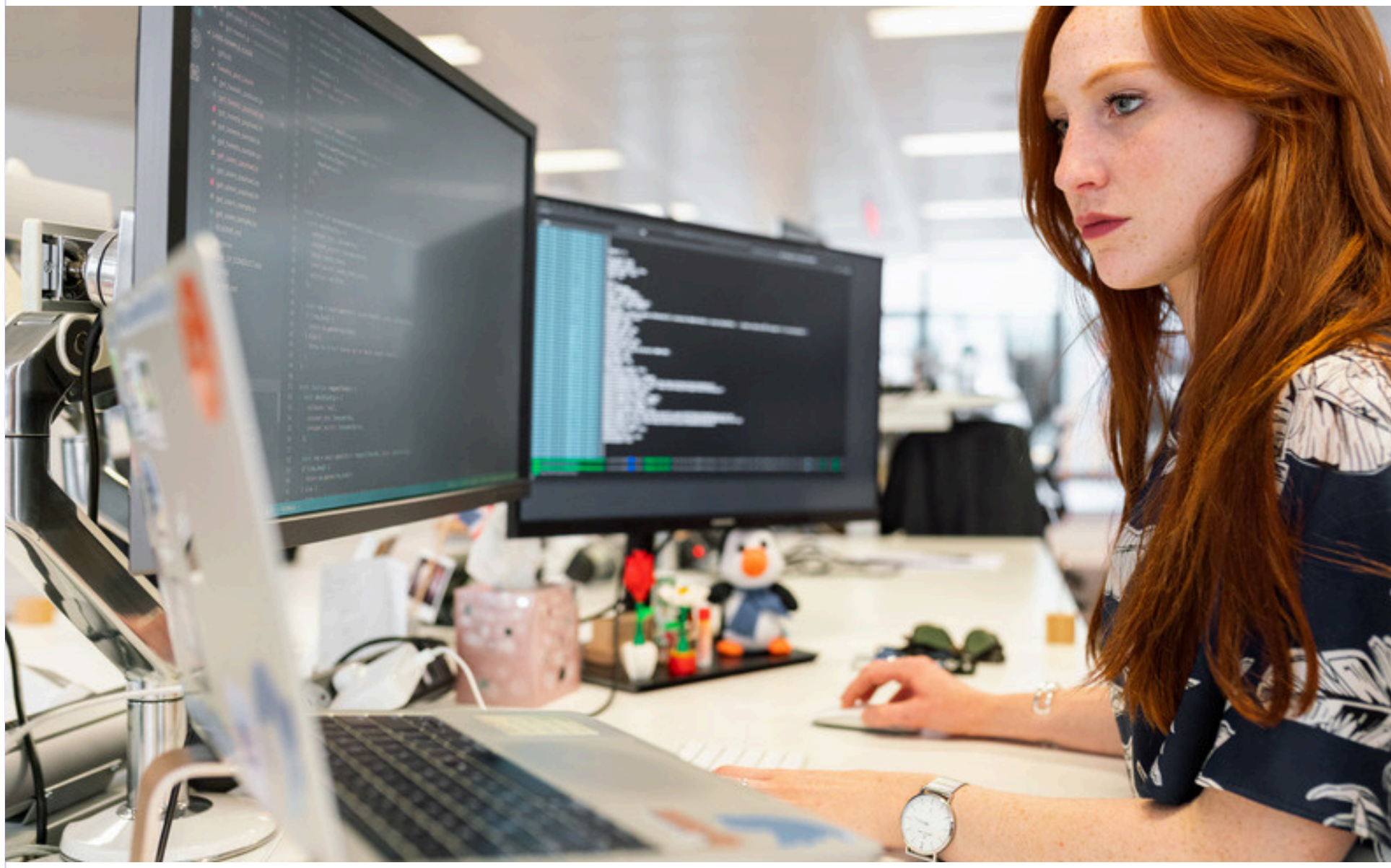
End Date: February 14th, 2027

Class Time : 9 AM – 10:30 AM IST, Saturday & Sunday

Primary Audience: Engineers with a technical background.

Coding Expected: Yes.

What You'll Learn



Key Skills

1. Master Scalable AI Frameworks

Learn LangGraph, Pydantic AI, and vector databases to build production-grade RAG and agentic systems.

2. Design Production-Grade AI Systems

Design scalable agentic and retrieval systems using context engineering, memory, access control, and production-ready design patterns.

3. Make AI Reliable with Evals

Productionize reliable AI applications using guardrails, LLM-as-a-Judge evaluations, observability and deploy AI applications

This is a live and interactive cohort. Students are expected to code, design, and deploy AI systems throughout the program.

Students gain practical experience in production AI system design, architecture trade-offs, evals, deployment and observability.

Cohort Curriculum

Week 1-3: System Design, Retrieval & Evals

Week 1: Agentic System Design

Single and multi-agent systems, context engineering, short- and long-term memory, and basic agent evaluations. Build a scalable agentic application.

Week 2: Search & Retrieval Patterns

Design ingestion pipelines for changing data, access control, scalable retrieval, and input/output guardrails. Build a scalable RAG application.

Week 3: Evals & Agentic AI Security

Build evaluation datasets for agent actions and tool calls, use LLM-as-a-Judge, automate regression tests, and test prompt injection and unauthorized tool usage.

Weeks 4–6: Deployment, Scaling & Capstone

Week 4: Agent Deployment & CI/CD

Build secure APIs, connect databases and background workers, containerize AI applications, and automate testing and deployment with CI/CD.

Week 5: Observability, Scaling & Optimization

Trace agent actions and MCP calls, monitor failures and token usage, apply caching and rate limits, use async execution, and set up production alerts.

Week 6: Production Capstone

Review architecture and design decisions, validate security and reliability, analyze cost/performance trade-offs, and present a production-grade AI application through a live demo.

6	12	45	∞
Weeks of AI System Design	Live Classes	Days of teacher support	Unlimited Community access

Your Instructors





Tanishq Singh

AI Engineer | IIT Madras |
University of Birmingham

Gaurav Sen

Ex-Software Engineer @
Uber, Directi

Tanishq Singh is an AI Engineer and Master's graduate from IIT Madras and the University of Birmingham, with production experience across FinTech, HealthTech, and EdTech. He has built end-to-end RAG pipelines and multi-agent systems, with experience in agent orchestration, context engineering, memory, evaluations, hallucination detection, and guardrail testing.

Gaurav Sen is a Software Engineer with experience designing and building AI systems at InterviewReady. He has also worked with companies like Docker and NeonDB in explaining how to build reliable AI systems. Gaurav has previously spoken at the University of Houston-Texas, IIT Gandhinagar, and BITS Hyderabad.

LinkedIn | YouTube | X

LinkedIn | YouTube | X

Who Should Attend?

This program is for software engineers who want to build scalable production-grade AI applications.
We expect prior coding experience, and a basic understanding of software systems.



Ideal Role

Software Engineer, Staff Engineer, Tech Lead, Senior Managers

Coding Experience

Proficient in one programming language.

Prerequisites

Basic RAG or Agentic Application experience.

Cohort Seat Pricing



Cohort Fee	**₹2,00,000 / $2500**
Expected ROI (In the next 12 months)	• *100-120 hrs saved* • *5-10 AI opportunities recognized* • *2-5 AI projects built or improved*

What's Included?



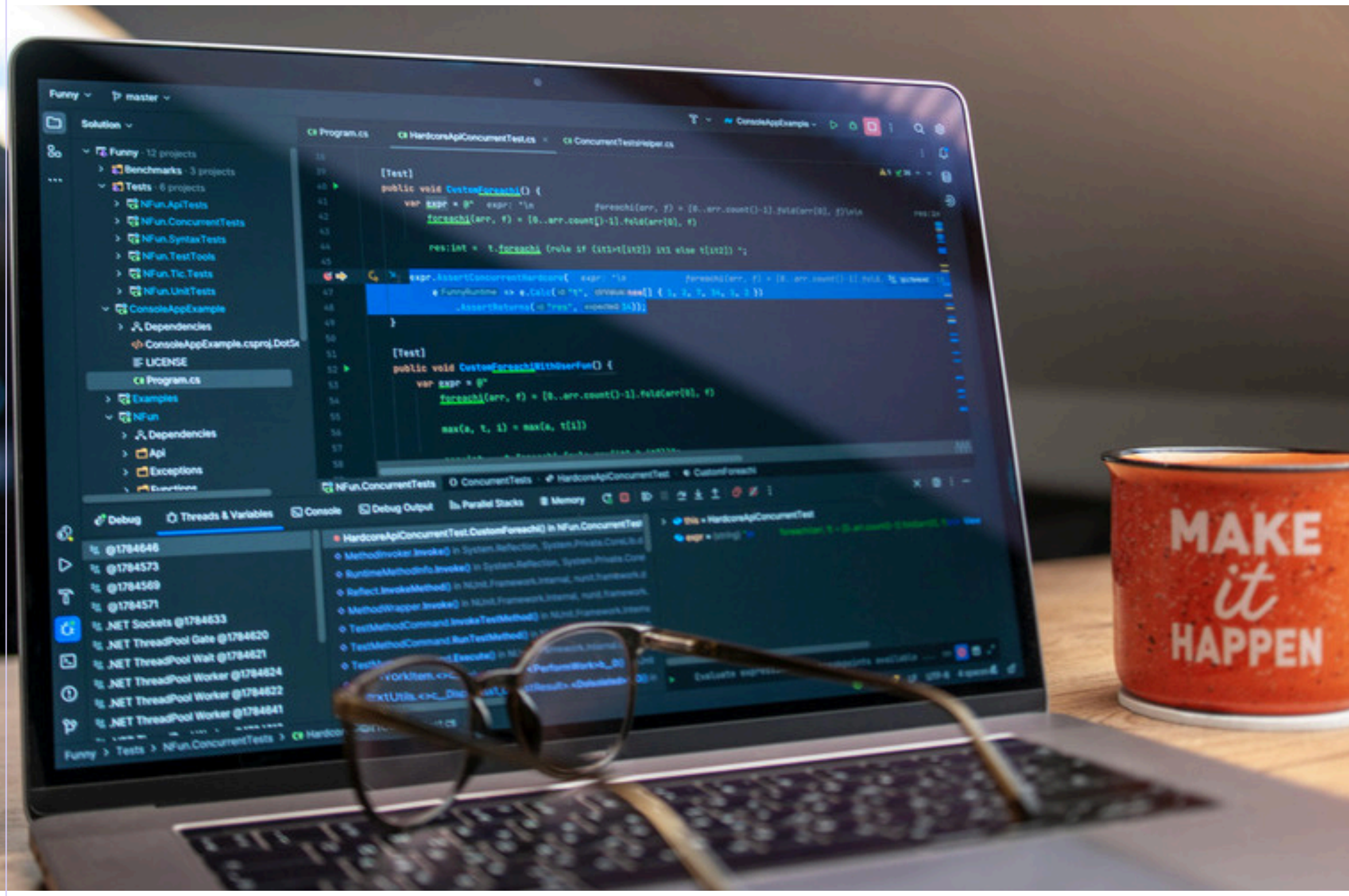
Workshop & Materials

- Interactive live classes with code
- Class notes for every topic
- Weekly hands-on coding assignments and production exercises
- Curated resource library, templates, and reading material

Ongoing Support

- Wednesday office hours (1 hour, open Q&A)
- Lifetime access to recordings and course material
- Peer accountability and discussion groups
- Certificate of Completion.

Ready to Build AI Systems?



aiengg.dev

Duration

9th January - 14th February 2027

Class Time

9 AM - 10:30 AM IST
on Saturday & Sunday

Email

hello@aiengg.dev

Website

www.aiengg.dev