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AiEngg

AI Engineering 2026: Master LLMs, Vector DBs, RAG & Agents



Cohort Instructor
Gaurav Sen

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 is due to implementation challenges, such as agent orchestration and LLM hallucination.

Addressing these challenges requires a broader, system-level design perspective[2]. That is why this 16-week AI Engineering program is designed to teach software engineers essential AI concepts in depth.

The Solution

- A 16-week intensive cohort designed for software and AI engineers
- Hands-on tool workshops with Python, RAG and Agents
- Deep Dive into Transformers and LLM Architecture
- Lifetime access to all recordings and course material post-cohort completion.
- Attendance tracking (on request), Certificate of Completion for all students

[1] [Coderpad 5000+ Developer Survey](#)

[2] [Confucius Code Agent by Meta & Harvard](#)

Program Highlights



32
Live Classes

in 16 weeks

Advanced
AI
Concepts

including Code & Agents

Hands-on
Capstone
Project

Industry-relevant project
for AI engineers

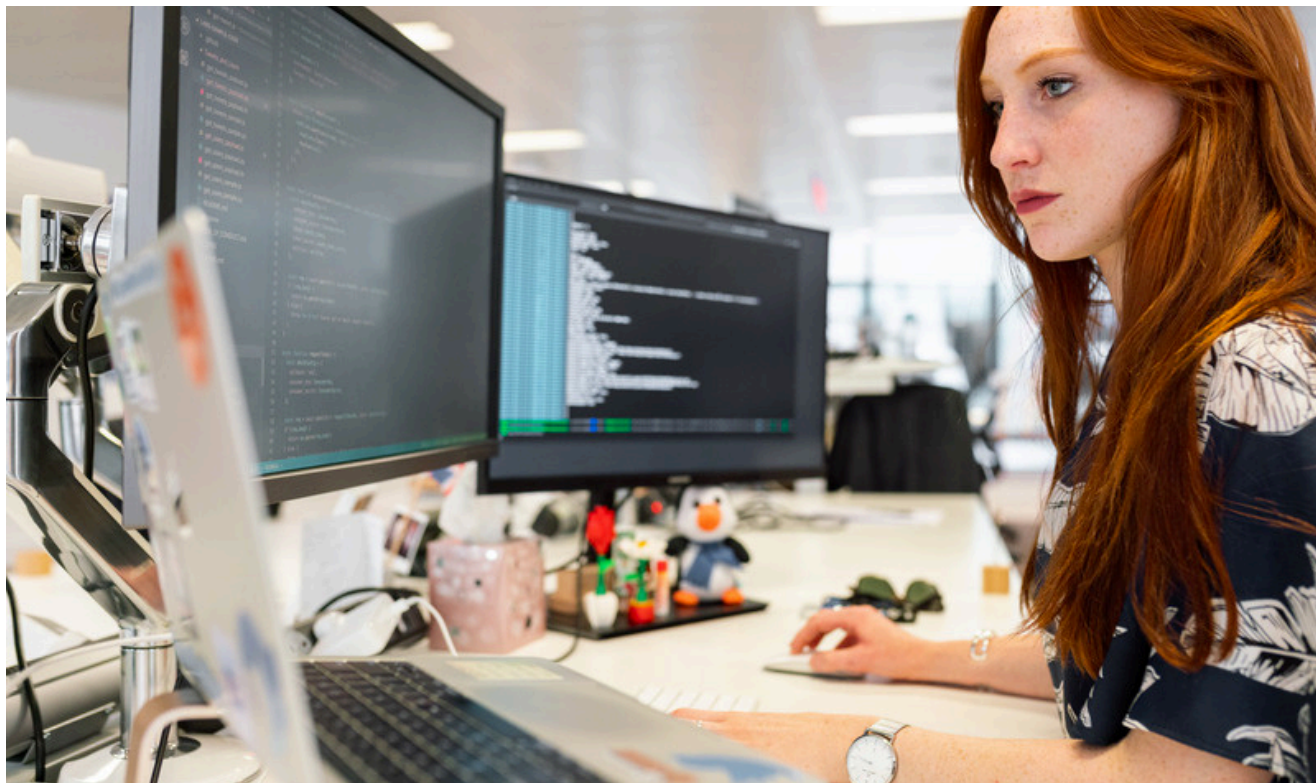
Start Date: February 28, 2026.

End Date: June 14, 2026.

Primary Audience: Engineers with a technical background.

Coding Expected: Yes.

What You'll Learn



Key Skills

1. You Master AI Frameworks

Learn different LLMs and frameworks to build applications.

2. You build AI Projects

Find use cases where AI can help improve your product and business.

3. You make AI Reliable

Productionize reliable AI applications using guardrails and model evaluations.

This is a live, interactive cohort with a dedicated instructor and teaching assistants. Students are expected to code and implement AI systems during the course of the program. You'll leave with templates, frameworks, and a concrete 120-day action plan.

Cohort Curriculum

Week 1-5: Foundation

Week 1: AI Basics and Setup

Understand the current AI ecosystem, basic math and ML necessary for LLMs, and the foundation of Neural Networks.

Week 2: Overview of LLMs

Learn scaling laws, types of supervised and unsupervised learning, how to evaluate models, and code a basic Neural Network with Numpy.

Week 3: Tokenization, Vectorization, and Attention

Understand the fundamental building blocks of LLMs with tokenization, vectorization and attention.

Week 4: Transformer Architecture Internals

Dive into LLM internals with QKV matrices, Cross Attention, Multi-head Attention and Feed Forward Neural Networks (FFNNs).

Week 5: Causal Attention + Coding a Transformer

Code the internals of a transformer, following the architecture from the research paper: "Attention is All You Need".

Week 6-7: LLMs at Scale

Week 6: LLM Training at Scale

Learn the end-to-end lifecycle of an LLM, from data processing to training and inference.

Week 7: Quantization and Fine-Tuning

Learn how LLMs are quantized for fast processing, and how to fine-tune models to meet specific business requirements.

5

Weeks of foundation

5

Weeks of Production

Week 8-12: AI Engineering for Production

Week 8: Retrieval Augmented Generation

Learn chunking strategies, data ingestion, reranking, indexing, vector databases, and other techniques for retrieval augmented generation.

Week 9: Hands-on RAG Implementation

An interactive project where students learn to code a RAG-based application and learn best practices for AI safety.

Week 10: AI Agents and Tool Calling

Learn what is an Agent, how they are different from plain LLMs, Tool Calling, ReAct pattern and Agent Orchestration.

Week 11: MCP, Context Engineering, Multi-Agent Systems

Code an AI Agent with MCP and memory, optimizing agentic flow.

Week 12: Evals, AI Applications in Production

Learn how Evals are used in production AI applications, and best practices for AI development.

Week 12-16: Reasoning, Image Models & Capstone

Week 13-14: Reasoning and Image Models

Learn what reasoning models are and how they are trained using RHLF and Chain of Thought. How are multimodal models trained with images and video.

Week 15-16: Capstone Project

Build your industry-relevant AI project in two-weeks, using the lessons from the cohort.

120

Days of teacher support

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Unlimited Community access

Your Instructor



Gaurav Sen

Ex-Software Engineer @
Uber, Directi

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



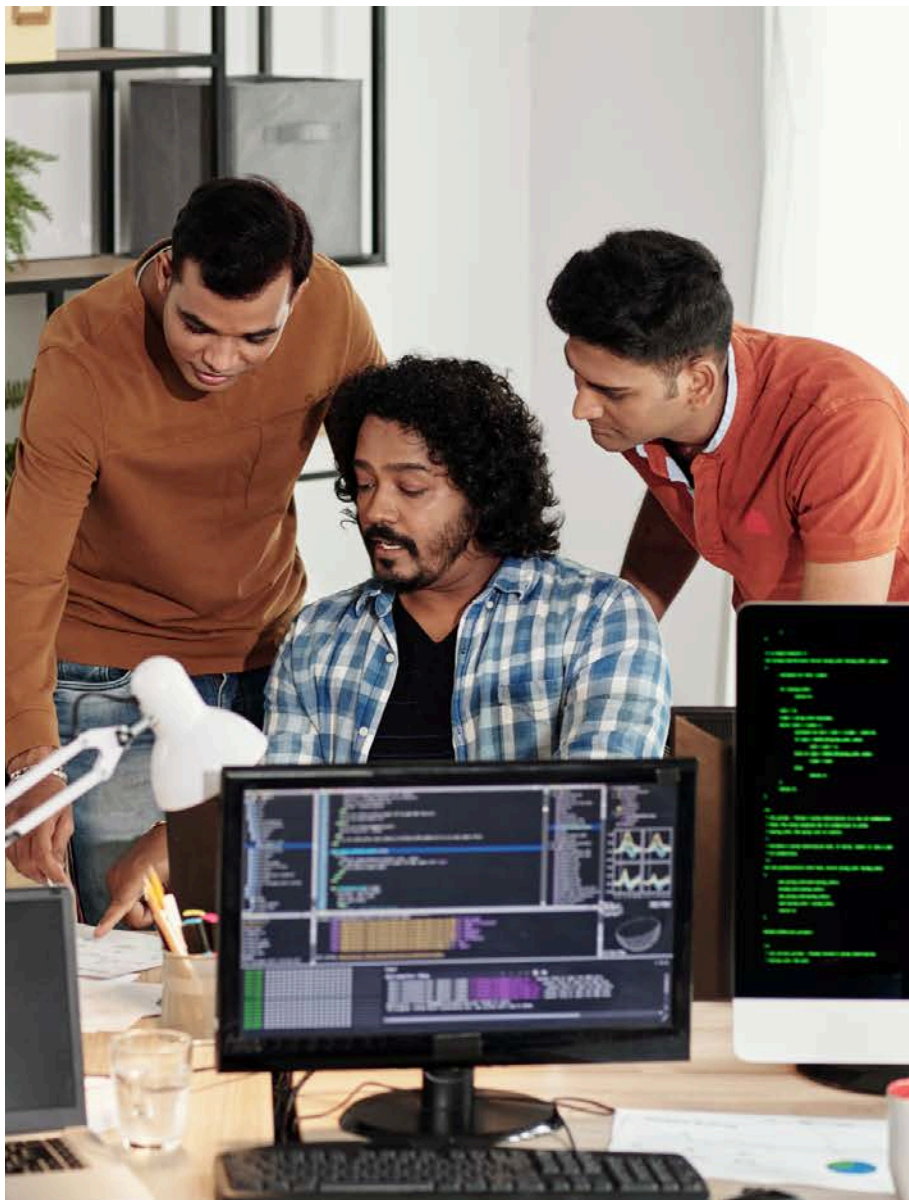
YouTube



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Who Should Attend?

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



Ideal Role

Software Engineer,
Staff Engineer,
Senior Managers

Coding Experience

Proficient in one
programming
language.

Prerequisites

Prerequisites of
ML and AI are
contained in the
course.

Cohort Seat Pricing



Early Bird Offer

Valid until Feb 16, 2026

₹1,20,000 / \$1400

~~₹1,50,000 / \$1750~~

Expected ROI

(In current year, 2026)

- *10-20 hrs saved per month*
- *2-5 AI opportunities recognized*
- *2-5 AI projects built or improved*

What's Included?



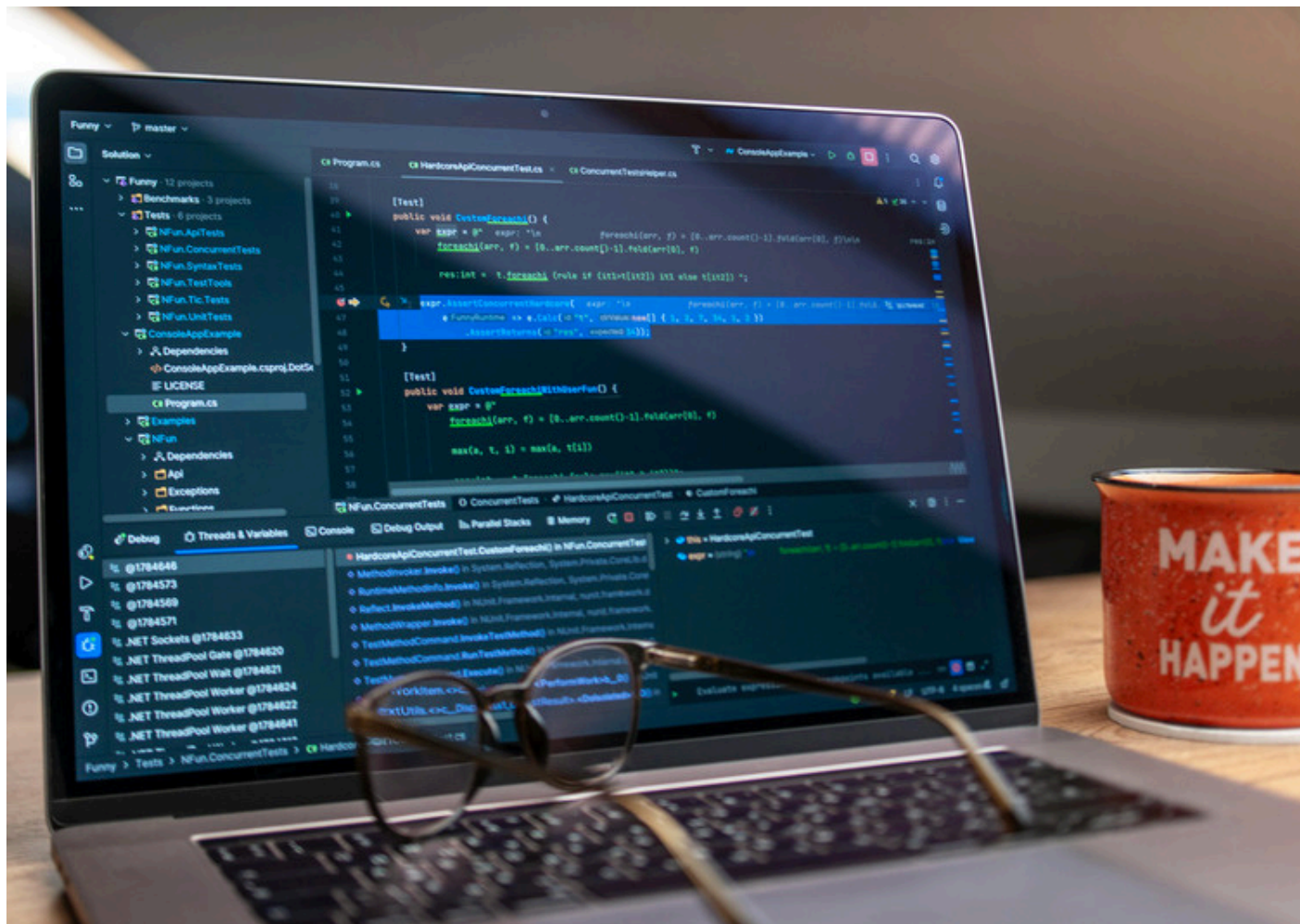
Workshop & Materials

- Interactive live classes with code and diagrams.
- Complete LLMs and tool evaluation matrix guide.
- Curated resource library.

Ongoing Support

- Access to private alumni community.
- Monthly check-in calls for 90 days.
- Office hours with the instructor.
- Peer accountability groups.
- Certificate of Completion.

Ready to Build AI Systems?



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Duration

28 February - 14 June
2026

Class Time

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

Email

hello@aiengg.dev

Website

www.aiengg.dev