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AiEngg

# AI Engineering 2026: Master RAG & Agents



Cohort Instructor  
**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 is due to implementation challenges, such as RAG accuracy ceilings, Agent Orchestration, Hallucinations, and Lack of production-grade evaluation.

Addressing these challenges requires a system-level design perspective. That is why this 8-week intensive cohort is designed to teach software engineers how to build, evaluate, and ship reliable RAG and agentic AI systems.

## The Solution

- An 8-week intensive cohort designed for software and AI engineers
- Hands-on workshops with Python, RAG, and Agents
- Deep dive into RAG architectures, multi-agent systems, and evaluation frameworks
- 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



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16  
Live Classes

in 8 weeks

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Retrieval-  
Augmented  
Generation  
& Agents

production-focused  
curriculum

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Hands-on  
Capstone  
Project

Industry-relevant project  
for AI engineers

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**Start Date:** September 12<sup>th</sup>, 2026.

**End Date:** November 1<sup>st</sup>, 2026

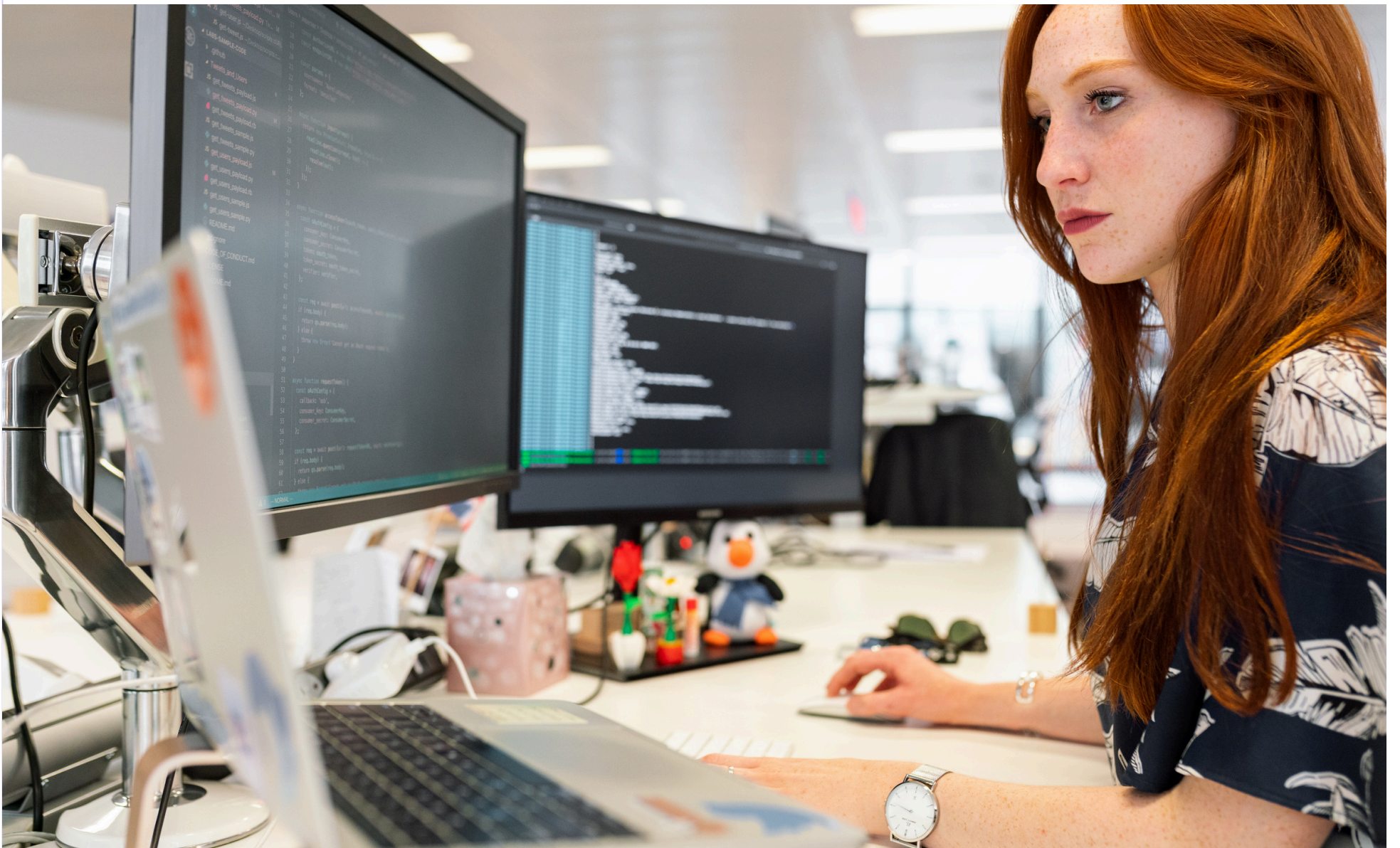
**Class Time :** 9 AM – 10:30 AM IST, Saturday & Sunday

**Primary Audience:** Engineers with a technical background.

**Coding Expected:** Yes.



# What You'll Learn



## Key Skills

### 1. You Master AI Frameworks

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

### 2. You build AI Projects

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

### 3. You make AI Reliable

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

This is a live, interactive cohort with a dedicated instructor. Students are expected to code and implement AI systems during the program. You'll leave interview-ready on RAG and agentic AI, with the vocabulary, tradeoffs, and design patterns that come up in real AI Engineering interviews.



# Cohort Curriculum

## Week 1-4: Foundations & RAG

### Week 1: Terminology & Prerequisites

Core LLM terminology (tokens, vectors, attention), how LLMs are trained, and prompting basics. Make your first LLM call and compute vector similarity.

### Week 2: RAG Components & Architecture

What is RAG, chunking strategies, embedding models, and vector databases (indexing, similarity scoring).

### Week 3: Advanced RAG

Why naive RAG hits accuracy ceilings, Hybrid search, query rewriting (HyDE, multi-query), cross-encoder reranking, and RAG-specific evals.

### Week 4: RAG Architectures

Common pitfalls in RAG, types of architectures (GraphRAG, KAG, Agentic RAG, etc), and choosing the right one.

## Weeks 5–8: Agents & Capstone

### Week 5: Single-Agent Systems

What is an agent, tool/function calling, the ReAct pattern, and Pydantic AI. Failure points for Single-Agent systems.

### Week 6: Multi-Agent Systems

What are multi-agent systems, agentic design patterns, building agents with LangGraph, and problems unique to multi-agent (orchestration, information isolation, planning).

### Week 7: Context Engineering, Memory & Evals

Context engineering vs. prompt engineering, memory systems (short-term, long-term), managing memory in multi-agent systems, and evals. Run a full eval suite on your Week 6 pipeline.

### Week 8: Capstone Project

AI engineering best practices, tradeoffs (cost vs. accuracy vs. latency), architecture reviews, and capstone scoping. Live capstone demos with peer Q&A and structured feedback.

4

Weeks of RAG  
Mastery

4

Weeks of Agents &  
Evals

60

Days of teacher  
support

∞

Unlimited  
Community access

# Your Instructor



**Tanishq Singh**

AI Engineer | IIT Madras |  
University of Birmingham

Tanishq 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 using tools like **LangGraph**, CrewAI, and AWS Bedrock, with deep expertise in agent orchestration, context engineering, and memory for agentic systems. His evaluation work spans **hallucination detection**, prompt injection, and guardrail testing.



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.



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## Ideal Role

Software Engineer,  
Staff Engineer,  
Tech Lead,  
Senior Managers

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## Coding Experience

Proficient in one  
programming  
language.

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## Prerequisites

Prerequisites of  
ML and AI are  
contained in the  
course.



# Cohort Seat Pricing



|                                                            |                                                                                                                                                                        |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cohort Fee                                                 | <div>Early Bird Discount</div> <div>₹1,15,000 / \$1250</div> <div><del>₹1,40,000 / \$1500</del></div>                                                                  |
| <div>Expected ROI</div> <div>(In current year, 2026)</div> | <div><ul style="list-style-type: none"><li>10-20 hrs saved per month</li><li>2-5 AI opportunities recognized</li><li>2-5 AI projects built or improved</li></ul></div> |



# What's Included?



## Workshop & Materials

- Interactive live classes with code and diagrams
- Class notes for every topic
- Weekly assignments: hands-on code labs and conceptual exercises
- Curated resource library and reading list

## Ongoing Support

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



# Ready to Build AI Systems?



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## Duration

12th September - 1st November 2026

## Class Time

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

## Email

hello@aiengg.dev

## Website

www.aiengg.dev