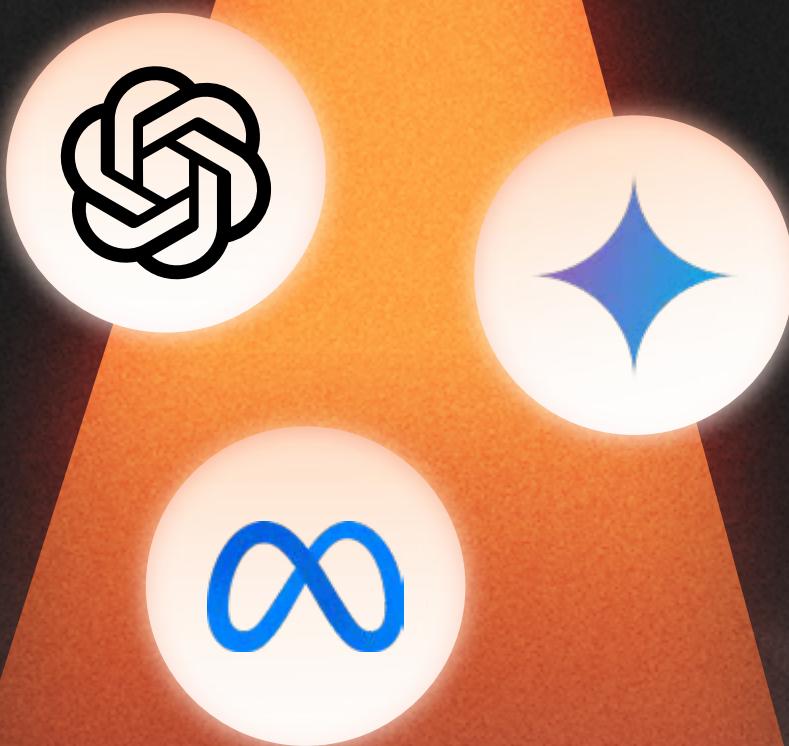




# Advanced Certification in GenAI & Multi-Agent Systems



A 6-month industry-ready  
program to future-proof your career



# About Coding Ninjas

Coding Ninjas was founded in 2016 by Ankush Singla, Kannu Mittal, and Dhawal Parate to bridge the skill gap between formal education and industry demands, thereby boosting India's tech ecosystem.

Having experienced both sides-as job seekers and hiring managers-the founders recognized the widening skill gap as technology advanced rapidly.

Starting in a small classroom in Delhi with a team of seven, Coding Ninjas quickly gained popularity. As the demand grew, they transitioned to online courses to teach more students across India. Their focus was always on student success, preparing them for life-changing job opportunities rather than just competitive exams.

As the company expanded, it maintained high standards, reflected in its top Net Promoter Scores (NPS), high course completion rates, and excellent placement records.

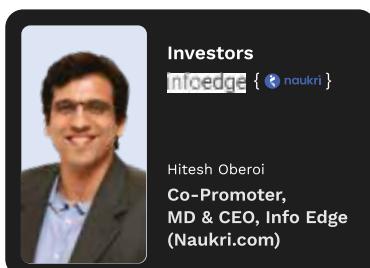
Over the years, Coding Ninjas has introduced pioneering features such as industry-relevant teaching by faculty from MAANG companies, a state-of-the-art live 1:1 doubt support platform, a superior online classroom experience, a Teaching Assistant program for alumni, a free practice and interview prep platform in Code 360 (previously CodeStudio), and most recently its exclusive partnership with Naukri.com.

Ankush's passion for coding and teaching continues to drive the company, aiming to transform the lives of millions of students.

This is just the beginning.



NSDC Certified



Investors - Info Edge (Naukri.com)

# Message from the Founder

## Ankush Singla

Co-Founder & Instructor, Coding Ninjas

B.Tech, IIT Delhi | MS, Stanford University

Ex-  



Dear Learner,

Welcome to the Advanced Certification in Gen AI and Multi-Agent Systems, a hands-on program built to help you build, innovate, and lead with AI.

Generative AI is transforming every industry- fintech, edtech, e-commerce, logistics- and companies are hiring engineers and prompt developers like never before. Yet, there's a gap between demand and talent. Too many professionals are stuck in outdated roles or believe cutting-edge tech isn't for them.

I've seen this challenge, both as an engineer navigating the job market and as a hiring manager at Amazon and Facebook, searching for talent that could build, not just understand.

That's why we created this program:

- To equip you with real-world skills in LLMs, multi-agent systems, and product-grade AI.
- To help you learn how to position that work to land interviews and crack offers at top product-based companies, both in India and globally.

The future is being built with AI. The only question is- will you be part of building it?

If you're ready to take that leap, we're here to support you every step of the way.

Welcome to Coding Ninjas.

## Hitesh Oberoi

MD & CEO, Info Edge (Naukri.com)



When I graduated from IIT in 1994, India had very few tech jobs. A decade later, IT services took off. Today, we're seeing another major shift- India is becoming a hub for deep tech and product innovation. It's no longer about cost advantage, it's about skill advantage.

That's why I believe in what Coding Ninjas is building. When I met Ankush, I saw more than a tech founder, I saw a teacher dedicated to student success. And at Naukri, we're evolving into a full-fledged careers platform that supports learners throughout their journey.

Our partnership with Coding Ninjas brings together India's top tech education and job platform empowering professionals to upskill and get hired, faster.

We're proud to be shaping the future of tech education in India, together.

All the best.

# Coding Ninjas' 9-Year Legacy of Success

Empowering coders to achieve their dreams



## 1.5 Lac+ learners

cracked dream roles at top tech companies



## 1,400+ Alumni

in MAANG & more in 103/111 Unicorns



## 1 Cr+ highest CTC

after completing the course



## 128% Average hike

via our placement cell

## Why are we #1

1

### Alumni coverage

- Students from 4,400+ colleges
- Professionals from 1,100+ companies

2

### Preferred upskilling platform for

- Tech working professionals
- NIRF Top 100 college students
- First product-based job seekers

3

### Career transitions enabled

- Non-tech to tech
- Service to Product
- Career break to tech job
- Tier 2/3 college to MAANG

# Coding Ninjas Achievers



## MAANG ROLES

Pareksha Manchanda  
 Google



Krishna Barnwal  
 amazon



Yash Preet  
 Microsoft



Varun Kashyap  
 amazon



Ankur Tiwari  
 Google



Dhriti Aggarwal  
 Meta



Naman Jain  
 Microsoft



Vartika Shakya  
 Adobe



## TOP TECH ROLES

Raunak Kondiboyina  
 zomato



Sarthak Pandey  
 CRED



Sourabh Majumdar  
 Flipkart 



Akash Pal  
 bp



Hitanshu Dhawan  
 PhonePe



Peeyush Saxena  
 Groww



Rahul Kathuria  
 lenskart



Naman Jain  
 make my trip



& 1,400 more

& Lacs more

# Why is the **Advanced Certification in Gen AI and Multi-Agent Systems** Right for You?

AI is transforming how we build products, solve problems, and hire talent. Companies are actively seeking professionals who can apply GenAI to real-world challenges. This program is designed to make you one of them.



## Build Real-World GenAI Skills :

Get practical training in GenAI tools, RAG pipelines, LLMs, and multi-agent systems to solve real business problems.



## Create a Job-Winning Portfolio:

Work on 10+ mentor-reviewed projects that showcase your applied skills and strengthen your profile for top roles.



## Learn Without Disrupting Your Work

Access live classes, expert project sessions, and 24x7 AI-powered doubt resolution, designed for working professionals.



## Get Exclusive Access to the 10X Club

Get access to hackathons, tech talks, fireside chats, and events with IIT/IIM clubs and leading companies.

# The Future of GenAI

## \$1 Trillion+ Global Market by 2034

Gen AI is expected to grow from \$37.89 billion in 2025 to \$1,005.07 billion by 2034, at a CAGR of 44.2%, driven by sectors like finance, healthcare, and e-commerce.

~ Precedence Research

## \$7 Trillion Boost to the Global Economy

GenAI could increase global GDP by 7%, adding \$7 trillion to the economy over the next decade through productivity gains in industries like technology, healthcare, finance, and manufacturing.

~ Goldman Sachs

### India: Leading the GenAI Surge

- ₹1,000 Crore+ Market in 6 Years: India's GenAI market is expected to grow from \$1.02 billion in 2024 to \$8.34 billion by 2030.

~ Grand View Research

- #1 in GenAI Adoption: India leads the Asia-Pacific region with 93% of students and 83% of employees using GenAI tools.

~ Grand View Research

- 38 Million Jobs Transformation by 2030: GenAI will impact 38 million jobs, boosting productivity in the organized sector by 2.61%.

~ EY

- 2.3 Million AI Jobs by 2027: India will create 2.3 million AI job openings by 2027, increasing demand for skilled professionals.

~ Grand View Research

Generative AI is reshaping the global economy, and India is leading the way. This program is your opportunity to be a part of that change.

# AI: The Web Developer's Ally

AI is not going to replace programmers, but programmers who use AI will replace those who don't.

Helping developers integrate powerful features seamlessly

Learning from data to improve over time

Automating repetitive tasks for developers

Generating quick suggestions for fixes

Providing insights into code quality

Assisting in code review and testing

**AI will not replace developers, will instead create more work for them.**

~ Thomas Dohmke  
CEO at **GitHub**



# Why Now Is the Time to Upskill in GenAI?

Most developers have played around with GenAI; typing prompts into ChatGPT, leaning on Copilot, maybe trying CodeWhisperer or Tabnine. But using AI isn't the skill anymore. Building with it is.

Recruiters today want professionals who can create GenAI-powered systems, not just autocomplete code. That means designing real features, integrating APIs, and solving real-world problems with AI at the core. That's exactly what this program prepares you to do.

Thousands of developers are already making that shift. They're deploying products, integrating AI into workflows, and presenting portfolios that stand out. These are the people landing roles like **AI Engineer**, **LLM App Developer**, **ML Infrastructure Specialist**, and **Prompt Engineer**.

Top tech companies aren't waiting either. Their career pages are packed with AI-first roles, and they're hiring for developers who can build fast, integrate smartly, and ship AI-driven features.

The competition is real and it's growing. Every day you wait, someone else is building, learning, and breaking into GenAI roles.

The window to stand out is closing. This is your time to build and lead.



# Meet Your Mentors

Learn directly from real-world GenAI builders working at leading AI startups.



**Sameer Dubey**

Data Science Manager

Foundations of Neural Networks and Transformers



**Srishti Singh**

Senior AI Manager

Prompt Engineering and API Integration



**Arbaz Shaikh**

Machine Learning Engineer

Fine-Tuning LLMs



**Abhay Agarwal**

Team Lead Data Science

Basics of NLP and Retrieval-Augmented Generation



**Ayan Acharyya**

Junior AI Engineer

AI Agents and MAS, Deployment and Project Integration



**Raghusrinivasan J V**

Data Scientist - 1 Gen AI

Foundations of Neural Networks and Transformers

# A Note From Your Mentors

Dear students,

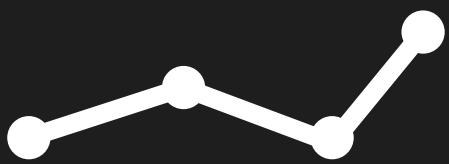
As you step into the world of GenAI, here are a few things to keep in mind to make the most of this program.



Remember, learning should be fun and rewarding. Approach each lesson with excitement and curiosity. And if you ever need help or have questions, feel free to reach out.

Wishing you all the best on your journey. **Happy coding.**

# Your 6-Month Learning Journey



## Month 1

### GenAI & Prompting Basics

Understand AI vs ML vs DL, GenAI platforms, ethics

Learn prompt anatomy & techniques (zero-shot, few-shot, ReAct, role-based)

**Tools:** Python, HuggingFace

## Month 3

### NLP & Intro to RAG

Learn embeddings, tokenization, chunking, semantic search

Build basic RAG pipeline using LangChain/LlamaIndex

**Tools:** HuggingFace, LangChain/LlamaIndex

## Month 5

### AI Agents & Multi-Agent Systems

Design single/multi-agent systems (ReAct, Tool-based, MARL)

Plan, reason & coordinate using LangChain, CrewAI/AutoGen

**Tools:** LangChain, LangGraph, CrewAI/AutoGen

## Month 2

### APIs & Real-World Prompting

Use LLM APIs (chat, embeddings)

Handle responses, manage API keys, debug outputs

**Tools:** LLM API

## Month 4

### Advanced RAG

Multi-hop retrieval, hallucination reduction, fallback strategies

RAG evaluation & optimization

**Tools:** LangChain/LlamaIndex

## Month 6

### Deploy & Orchestrate

Build & deploy APIs (FastAPI), frontend (Gradio/Streamlit)

Combine RAG + Agents + UI + monitoring (LLMOPs)

**Tools:** FastAPI, HuggingFace Spaces, Containerization

# Projects You Will Build

## 1. AI-Powered Product Insight Generator

### **Module:** Prompt Engineering & API Integration

Turn messy customer reviews into clear product pros/cons using prompt chaining and structured summarization—just like e-commerce AI assistants.

## 2. Resume-to-Job Semantic Search Engine

### **Module:** NLP & RAG

Build a smart recruiter that matches resumes to jobs using embeddings and vector search beyond keyword matching.

## 3. Custom Multi-Agent AI Ecosystem

### **Module:** AI Agents & Multi-Agent Systems

Design your own multi-agent system where intelligent agents collaborate to solve complex, dynamic tasks.

## 4. Smart Customer Support Chatbot (Capstone)

### **Brings Together:** Prompting + RAG + Agents + Deployment

Create a full-stack AI chatbot that answers real-time queries from docs, handles workflows, and mimics enterprise-level support tools.

# Become a Ninja AI Builder

By the end of the program, you will be able to-

## **Write AI prompts**

**Skills:** Prompt Engineering, AI vs ML vs DL, Open-source vs. closed-source models

**What you'll be able to do:** Learn how to craft precise prompts to get the best responses from AI. Guide AI to act as a specific role and generate relevant outputs for your projects.

**Tools:** Python, HuggingFace

## **Integrate GenAI into Projects**

**Skills:** API Integration, Prompt Evaluation, Security, Debugging

**What you'll be able to do:** Seamlessly integrate GenAI into your apps and evaluate performance. Identify and fix errors while ensuring your implementation is secure and scalable.

**Tools:** HuggingFace API, OpenAI API / Gemini API

## **Make Smarter AI Assistants**

**Skills:** NLP & Retrieval-Augmented Generation (RAG)

**What you'll be able to do:** Build smarter GenAI chatbots, legal assistants, and research tools that can retrieve and use real-time external data during live interactions.

**Tools:** LangChain, LlamaIndex, HuggingFace Embeddings

## **Humanize Your AI Assistants**

**Skills:** AI Agents, Multi-Agent Systems

**What you'll be able to do:** Build multi-agent AI systems where each agent takes on a specialized role, plans tasks, and collaborates to achieve complex goals autonomously.

**Tools:** LangChain, LangGraph, AutoGen/CrewAI, HuggingFace Transformers

## **Deploy AI into the Real World**

**Skills:** AI Deployment and Project Integration

**What you'll be able to do:** Launch your GenAI apps or assistants with secure API access using scalable, production-ready deployment practices.

**Tools:** FastAPI, Containerization tools

## **Know How GenAI Functions**

**Skills:** Neural Networks and Transformers

**What you'll be able to do:** Understand the inner workings of GenAI tools like ChatGPT and Gemini, including the neural network and transformer architectures that power them. Implement AI programs more effectively with this deeper knowledge.

**Tools:** Pytorch/TensorFlow/Keras, HuggingFace Transformers, BertViz

## **Build Your Own ChatGPT**

**Skills:** Fine-Tuning LLMs

**What you'll be able to do:** Take your GenAI skills to the expert level by fine-tuning LLMs to build your own GPT-style assistants for enterprise, research, or custom use cases.

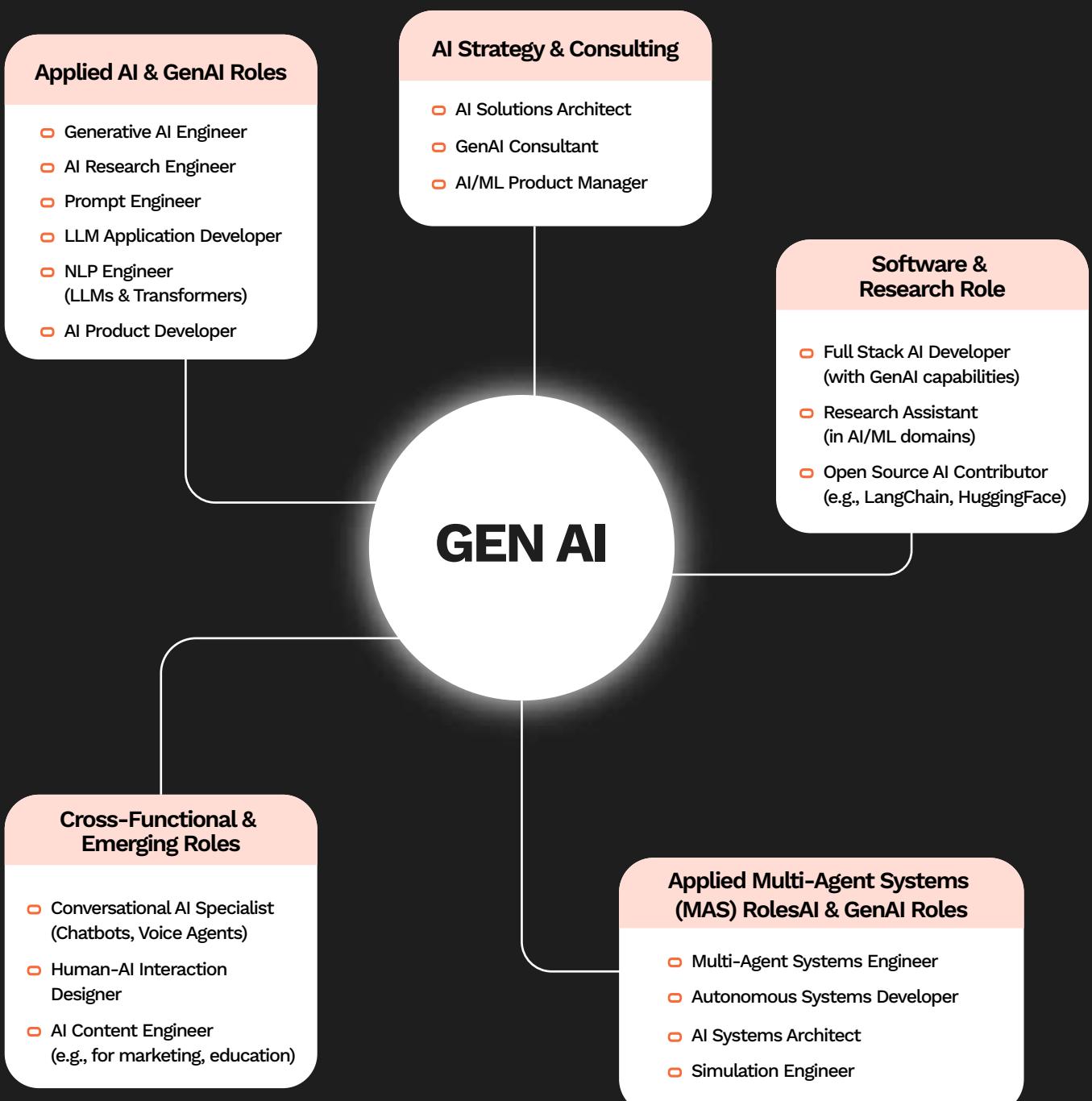
**Tools:** HuggingFace Trainer, Transformers



# Career Paths You Can Pursue

After this program, you won't just know GenAI, you'll be able to build with it.

Here's a peek at the roles you can confidently explore:



# Teaching Pedagogy

 **Duration:**  
**6 Months**

 **Learning Mode:**

-  **Live Classes**

Two live classes on weekends, three hours each. Recording for each will be provided after the class.

**Saturday**  
11AM-2PM

**Sunday**  
11AM-2PM

 **Additional Support:**

-  **1:1 AI-powered  
doubt support**

-  **Success  
Partner**

# Your Dedicated Success Partner

Each student of this advanced certification program is assigned a dedicated Success Partner.

A Success Partner actively contributes to your success and the effectiveness of the learning program, while fostering a supportive and engaging environment for you.

## Roles and Responsibilities of a Success Partner:

- Provides support to learners throughout their 6-month learning journey.
- Provides timely responses to inquiries, feedbacks or escalations, ensuring learners receive the support they need when they need it most.
- Tracks your progress and ensures you receive the personalised support to achieve your learning goals and maintain momentum to complete the course.

## How to seek assistance?

**1** After onboarding, your Success Partner will be in touch with you.

**2** Whenever you have any queries, you can call our Support Team from Monday to Saturday 10 AM to 7 PM.

**3** Support Team Contact: 7042333688

**4** Alternatively, you can also create a customer support ticket by sending an email to [support@codingninjas.com](mailto:support@codingninjas.com).

**5** Once a ticket is created you will be contacted by a representative.



# Program Curriculum

Module	Topics	Project Name
Prompt Engineering and API Integration	Distinguishing AI, ML, and DL	
	Introduction to GenAI	
	Open-source vs. Closed-source models	
	Ethical Considerations in GenAI	
	Anatomy of a prompt	AI-Powered Product Insight Generator
	Prompting techniques(Zero-Shot/ Few-Shot, Role-based, ReAct, Self-Consistency)	
	API integration & Handling Responses	
	Rate limits, security, API key management	
	Debugging GenAI outputs	
	Prompt evaluation	
Basics of NLP and Retrieval-Augmented Generation (RAG)	Text Preprocessing & Representation	
	Intro to Embeddings, Vectorisation and Semantic Search	
	Feature Engineering	Resume-to-Job Semantic Search Engine
	Chunking Strategies	
	Basics & Core Components of RAG	
	Introduction & Working with Vector Databases	

Module	Topics	Project Name
<b>Basics of NLP and Retrieval-Augmented Generation (RAG)</b>	Building simple RAG pipeline & application Advanced RAG techniques RAG evaluation and Fallback Strategies	<b>Resume-to-Job Semantic Search Engine</b>
<b>AI Agents and Multi-Agent Systems</b>	Introduction to AI Agents Types of agents Architectures and Design Patterns of AI Agents Multi-Agent Systems Popular AI Agent Frameworks and Use Cases Planning, Reasoning, and Tool Usage Practical Multi-Agent Patterns Multi-Agent Reinforcement Learning (MARL) Designing Goal-Oriented Systems Latency and cost optimization	<b>Custom Multi-Agent AI Ecosystem</b>
<b>Deployment and Project Integration</b>	Creating APIs with FastAPI Deploying APIs and Apps Designing a Modular AI System FastAPI for Orchestration Frontend Integration Monitoring & Error Handling What is LLMOps Live Deployment Demo & Project Sharing	<b>Smart Customer Support Chatbot System</b>

Module	Topics	Project Name
<b>Foundations of Neural Networks and Transformers [Optional]</b>	Linear & Logistic Regression Introduction to Perceptron, Multi-layer Perceptron Loss functions, Activation functions Backpropagation and Gradient Descent Intro to Deep Nets: CNNs, RNNs, LSTMs Evolution to Transformers Attention Mechanism Transformer architecture Pretraining vs Finetuning Transfer Learning Overview of Fine-tuning SLM vs LLM in fine-tuning Dataset Preparation SLM vs LLM in fine-tuning Parameter-Efficient Fine-Tuning (PEFT) techniques Training Pipeline Inference, quantization Evaluation & Cost Optimization	

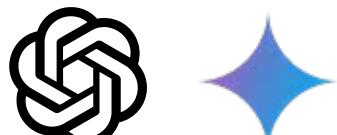
# Tools & Technologies



Python



HuggingFace



OpenAI API / Gemini API



LangChain/  
LlamaIndex



HuggingFace  
Embeddings



LangGraph  
(Framework)



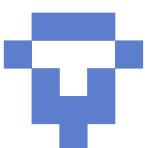
AutoGen  
/CrewAI



HuggingFace  
Transformers



FastAPI



BertViz



HuggingFace  
Trainers



PyTorch/TensorFlow  
/Keras

Containerization Tools  
(Deployment Tools)

# NSDC Certificate



- Coding Ninjas has joined hands with NSDC, a Skill India initiative by the Government of India to promote skill development in the country.
- The Coding Ninjas Advanced Certification in GenAI & Multi-Agent Systems is now NSDC approved.
- Our partnership with NSDC ensures enhanced employability and better career prospects for our students.

# Module Wise Certificate

Upon completing each module, you'll receive a certificate recognizing your achievement. A Certificate of Completion is awarded for scores of 70%+, and a Certificate of Excellence for scores of 90%+. These certificates showcase your expertise and validate your skills in each area.



# Program Certificate

Coding Ninjas will award a certificate of successful completion to participants who complete the program successfully with 70% of the score in the evaluation. You should have watched at least 70% of the course content in your classroom to be considered eligible for program completion criteria and receive a certificate.

