

APPLIED AGENTIC & GEN AI SYSTEMS

Program for Tech Professionals



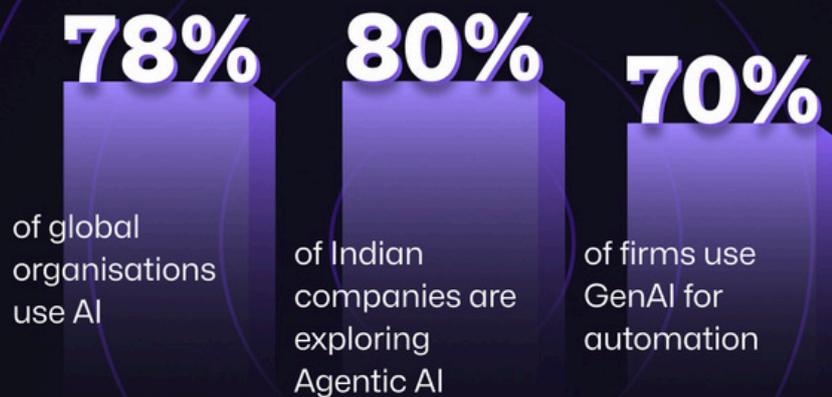
Master AI & automate workflows to future
proof your career

 16 Weeks Program

 Python Experience Required

Build, Deploy and Lead with **Agentic & Gen AI**

From software developers to engineering leaders, professionals across industries and experience levels see potential in **Agentic & Gen AI**.
But most people don't know how to actually use it.



Sources: *McKinsey, State of AI 2025 | Deloitte, State of GenAI - India*

Newton School's **Applied Agentic & Gen AI Program** is designed for software professionals who want to master AI workflows and lead the future of work.



LIVE sessions +
real-world use cases



Tools and workflows
used by top global
companies



Project-based
curriculum built for
working professionals

Who is this program for?

Whether you're just starting out, rising through the ranks, or leading the charge, this certification program is designed to elevate every stage of your career.

1-3 Years of Experience

AI Launchpad

Build systems that scale you

3-9 Years of Experience

AI Architect

Design intelligent frameworks
and scale success

10+ Years of Experience

AI Vision

Shape the future
with AI-empowered leadership

Software Professionals



- ✓ Software Engineers
- ✓ DevOps Engineers
- ✓ Backend Developers
- ✓ Full-Stack Developers

Tech Leaders



- ✓ CTOs
- ✓ Engineering Managers
- ✓ Tech Founders
- ✓ Technical Product Managers

AI & Data Specialist



- ✓ Data Scientists
- ✓ NLP Specialists
- ✓ AI Researchers
- ✓ Machine Learning Engineers

Tech Innovators



- ✓ Startup Founders
- ✓ Tech Consultants
- ✓ Tech Entrepreneurs
- ✓ Product Innovators

AI Enthusiasts & Learners



- ✓ Tech Hobbyists
- ✓ Career Transitioners
- ✓ Engineering Students
- ✓ Self-Taught Programmers

Designed for future-thinking software to tech professionals across industries:

₹ Finance

📖 Education

🏥 Healthcare

🛒 E-commerce

🛒 E-commerce

🏪 Retail

★ & many more

16 WEEKS GEN AI MASTERY ROADMAP

Phase	Focus	Key Outcome
AI Product Builder (Weeks 1-3)	Robust LLM Engineering & Evaluation Frameworks	Engineer scalable prompt architectures and rigorous evaluation pipelines to deploy high-precision, RAG-powered enterprise knowledge copilots.
Enterprise Intelligence Architect (Weeks 4-6)	Multi-Source Orchestration & Decision Intelligence Systems	Architect advanced Hybrid and GraphRAG systems that orchestrate multi-source knowledge to drive high-fidelity decision intelligence
Autonomous Workflow Automation Architect (Weeks 7-10)	Autonomous, Memory-Aware Workflows with Human Oversight	Design collaborative, memory-driven multi-agent systems that drive autonomous workflows with strategic human-in-the-loop automation.
AI Infrastructure Manager (Weeks 11-14)	Scalable AI Backend & Inference Infrastructure	Architect scalable, resilient AI backend services that optimise cost and reliability through intelligent model routing and deep observability.
Enterprise AI Platform Strategist (Weeks 15-16)	Enterprise AI Platform Architecture & Reliability Engineering (With Mega Capstone Project)	Architect robust, multi-tenant AI platforms that ensure strict SLAs and reliability to power a comprehensive, end-to-end AI operations ecosystem.

From learning to leading:

Your Gen AI roadmap

PHASE 0

Software Engineering & Backend Foundations (Pre-recorded content)



Focus:

- 1 Python proficiency and programming basics
- 2 API fundamentals
- 3 Familiarity with Git workflows

Market Application:

- Async content to bring you at pace with the program.

PHASE 1 (Weeks 1-3)

AI Product Builder



Focus:

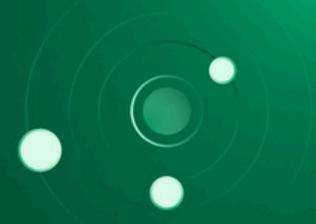
- 1 LLM engineering foundations
- 2 Prompt architecture and evaluation pipelines
- 3 Enterprise knowledge copilots using RAG

Market Application:

- Enterprise document copilots, AI QA systems, multi-model routing consoles

PHASE 2 (Weeks 4-6)

Enterprise Intelligence Architect



Focus:

- 1 Hybrid retrieval and GraphRAG architectures
- 2 Multi-source knowledge orchestration
- 3 Decision intelligence systems

Market Application:

- Executive intelligence dashboards, research copilots, relationship intelligence engines

PHASE 3 (Weeks 7-10)

Autonomous Workflow Automation Architect



Focus:

- 1 Agentic AI system design
- 2 Multi-agent collaboration
- 3 Memory-driven AI workflows
- 4 Human-in-the-loop automation

Market Application:

- Sales automation AI, support automation agents, recruiting automation workflows

PHASE 4 (Weeks 11-14)

AI Infrastructure Manager



Focus:

- 1 AI backend services
- 2 Inference serving and scaling
- 3 Observability, monitoring, and reliability
- 4 AI cost engineering and model routing

Market Application:

- Enterprise AI service infrastructure, AI governance platforms, cost optimisation engines

PHASE 5 (Weeks 15-16)

Enterprise AI Platform Strategist



Focus:

- 1 AI platform architecture design
- 2 Multi-tenant AI services
- 3 SLA and reliability engineering
- 4 Full AI operations platform development
- 5 Mega Capstone with full AI operations platform development

Market Application:

- Enterprise AI automation platforms managing cross-department workflows

Flagship Portfolio/ Capstone Projects



Phase 1: AI Product Builder



AI-Driven Multi-Model Query Routing Console

Create a routing system that intelligently routes queries from users to the right model (e.g., HR questions, legal questions, finance queries) for optimal results.



AI QA Systems for Knowledge Management

Build an AI-powered QA system that leverages generative AI for answering business-specific questions based on existing knowledge bases.



Phase 2: Enterprise Intelligence Architect



Enterprise Knowledge Graph for Multi-Source Integration

Build a hybrid retrieval and GraphRAG system to integrate multiple data sources into a cohesive knowledge graph.



Decision Intelligence Dashboard for Executives

Design a dashboard that integrates enterprise data (e.g., from HR, finance, operations) to provide actionable insights for executive decision-making.



Phase 3: Autonomous Workflow Automation Architect



Autonomous Multi-Agent Sales Workflow System

Create a multi-agent system for automating sales workflows, including lead nurturing, engagement, and conversion tasks.



AI-Powered Support Automation Agent

Design an AI agent that handles customer support queries autonomously, with the option for human intervention when needed.



Phase 4: AI Infrastructure Manager



Scalable AI Inference Serving for Multi-Agent Systems

Build an infrastructure system to serve AI model inferences at scale, supporting the deployment of multiple agent models.



AI Cost Optimization and Model Routing

Develop a cost-optimization platform that tracks the resource usage of AI models and routes tasks to the most efficient model based on cost and performance.



Phase 5: Enterprise AI Platform Strategist (Mega Capstone Project)



Cross-Department AI Workflow Automation Platform

Design and deploy an enterprise-wide AI platform that supports the automation of workflows across HR, finance, operations, and customer support using multi-agent systems.



AI Platform SLA & Reliability Engineering for Enterprise Automation

Implement reliability engineering practices and SLA-driven models to ensure the AI platform is always available and operational.

Our Mentors



Shantanu Shubham
SE 2 @ Intuit, Ex - G-P,
Amazon, SLB
Intuit



Tanay Kedia
Product Manager
ANAROCK



Swapravo Sinha Roy
Director of Operations
Mindgraph AI



Anirban Paul
Co-Founder & Director
of Execution - AIML &
Data Science
Mindgraph AI



Rahul Thakur
Founding ML
Engineer
OptIQ.AI



Gaurav Singh Rajput
Machine Learning
Operations Engineer
Fractal

Tools & Technology Stack

AI Models:



OpenAI GPT Models



Claude (Anthropic)



Gemini (Google)

Knowledge & Retrieval Systems:



Pinecone



ChromaDB



Weaviate



Neo4j Graph Database



LlamaIndex

Agentic AI & Automation:



LangChain



LangGraph



N8N



Zapier AI



CrewAI

Workflow Automation

Backend & Infrastructure:



Fast API



vLLM Inference Engine



Docker



Kubernetes



AWS



Azure



GCP

Cloud Deployment

Monitoring & Governance:



LangSmith



Arize



Weights & Biases



Guardrails AI



LiteLLM Model Routing

About Newton School

Founded by Siddharth Maheshwari (IIT Roorkee) and Nishant Chandra (IIT Roorkee, IIM Calcutta), Newton School is redefining how India learns and works in technology. With a mission to unlock human potential at scale, it bridges the gap between talent and opportunity – equipping learners with the skills, mentorship, and career pathways to thrive in a fast-changing digital world.

Newton School graduates now drive innovation at leading organisations including Zomato, Nykaa, Thoughtworks, Publicis Sapient, and Motorola proving the founders' vision of building a new generation of industry-ready tech leaders.

Our Investors

Newton School's vision is shared by global AI Leaders, powerhouse VCs, and Angel Investors.



nexus
venture partners

Nexus Venture Partners



rtp global

RTP Global



STEADVIEW
CAPITAL MANAGEMENT

Steadview Capital Management



Ready to lead the future of work?

Join a new generation of professionals mastering Agentic & Gen AI,

Program Details at a Glance

- Program Investment: **₹1,49,999 + GST**
- Duration: 16 Weeks | Designed for Working Professionals
- Delivery Format: **100% Online**
(Live Expert-Led Sessions + Guided Self-Paced Learning)
- 90+ Hours of Intensive, Hands-On Live Learning
- Faculty Featuring **MAANG Engineers, AI Founders & Senior Industry Practitioners**
- Build 10+ Production-oriented, Portfolio-defining AI Projects
- Earn **Newton School Certification** in Agentic & Generative AI Engineering
- Selective Merit-Based Scholarships Available
- **Exclusive Scholarship Benefits** for Newton School Alumni

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Limited seats.
High demand.