Coding MASTERS
Masters in Online Training

Real Time GENAI and AGENTICAI ENGINEERING

Why Choose us?

- Mock Interviews
- Resume Building
- 1:1 Career Mentorship
- Industry Ready Curriculum

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ABOUT TRAINER

Subba Raju Sir

TRANSFORMING PROFESSIONALS INTO AI INNOVATORS

SUBBA RAJU SIR

CERTIFICATIONS & CREDENTIALS

- Microsoft Certified Data Scientist & Co-pilot Engineer
- Google Certified Gen-AI Engineer
- Certified Pythonista Programmer
- Certified AI in Testing (ISTQB)
- Certified in GenAI & Agentic AI Engineering (Google, Microsoft, IITG)

Withover 24years of ITexperienceand an M.Sc. in Computer Science from Manipal University, Subba Raju Sir is a leading trainer in Data Science, Prompt Engineering, LLMs, Generative AI, Agentic AI, and Autonomous Testing (AI). He emphasizes hands-on, industry-oriented learning that bridges the gap between academic concepts and real-world applications.

SPECIALTIES & EXPERTISE:

- DATA SCIENCE, AI, AND GENERATIVE AI
- PROMPT ENGINEERING & AGENTIC AI SOLUTIONS
- PYTHON PROGRAMMING & AI TESTING
- CORPORATE & ACADEMIC TRAINING (250+ HOURS COURSES)
- MENTORING PROFESSIONALS FOR CAREER GROWTH IN AI

Reviews

GenAI with AgenticAI Engineering

Satya Kiran

★★★★★

I enrolled in the GENAI with AgenticAI Engineering course at Coding Master, and it completely transformed my understanding of AI. Subba Raju sir explains even the toughest concepts in the simplest way. From real-time projects to hands-on tasks, every session felt practical and powerful. Truly the best place to master Generative AI!

Ashok Varma

★★★★★

If you're looking to build AI apps from scratch, this is the course! The AgenticAI modules were mind-blowing, and Subba Raju sir's teaching style made everything super clear. I started with basic knowledge, but now I can build advanced GenAI solutions. Highly recommended!

J Babunaik

★★★★★

The GENAI with AgenticAI Engineering course at Coding Master exceeded all my expectations. The curriculum is totally industry-oriented, the projects are practical, and the trainer is exceptional. Subba Raju sir gives personal attention to each student, making the learning journey smooth and enjoyable.

kanna varun1999

★★★★★

This course gave me the confidence to build my own AI tools. The hands-on labs, case studies, and real-world projects made learning easy and exciting. Thanks to Coding Master and especially Subba Raju sir, I now think and build like an AI engineer!

Module 1: Foundations of AI & Machine Learning

1. AI & ML Overview

- Definitions: AI vs ML vs Deep Learning vs Generative AI
- Key enterprise use cases
- Emerging roles (AI Architect, Generative AI Developer)

2. ML Workflow & Best Practices

- Data ingestion, cleaning, and feature engineering
- Training & validation concepts
- Accuracy, Precision, Recall, F1-score

3. Python Data Stack

- NumPy, Pandas, Matplotlib, Seaborn (EDA)
- Git & GitHub for version control

4. Hands-on Lab

- Basic ML Project: Titanic survival classification
- Practice the full workflow
- Code versioning on GitHub

Module 2: Deep Learning & Neural Networks

1. Neural Network Essentials

- Perceptron
- Forward & backward propagation
- Activation functions: ReLU, Sigmoid

2. Hands-On Frameworks

- PyTorch/TensorFlow basics
- Tensor operations
- Model definition
- Training loops

3. CNNs & RNNs (Optional Basics)

- CNN for image classification (MNIST/CIFAR-10)
- RNN/LSTM for sequence tasks (time permitting)

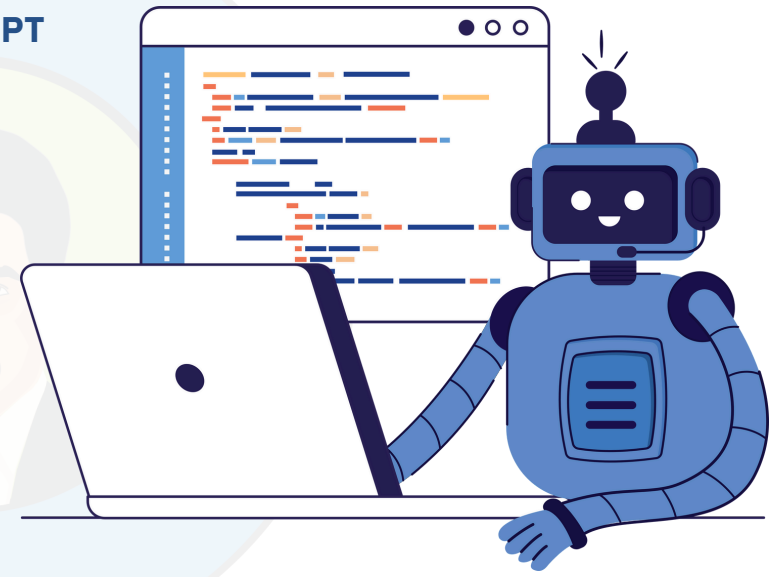
4. Hands-on Lab

- Train a CNN on MNIST/CIFAR-10

Module 3: Transformer & Large Language Models (LLMs)

1. Transformer Architecture

- Self-Attention
- Multi-Head Attention
- Positional Embeddings
- Encoder-Decoder vs Decoder-only (GPT architecture)



2. LLM Ecosystem

- OpenAI GPT (3.5, 4)
- Google Gemini
- Meta LLaMA
- Tokenization (BPE, WordPiece)
- Embeddings
- Prompt engineering basics

3. Fine-Tuning vs Prompt Engineering

- Parameter-efficient fine-tuning (LoRA, Adapters, PEFT)
- Prompt engineering: few-shot, chain-of-thought, system prompts

4. Hands-on Lab

- Prompt Engineering on GPT or local LLaMA
- Short demo of parameter-efficient fine-tuning

Module 4: Retrieval-Augmented Generation (RAG)

1. RAG Fundamentals

- Motivation: grounding for factual accuracy
- Pipeline: chunking → indexing → retrieval → generation

2. Vector Databases & Embeddings

- Pinecone, Chroma, Weaviate, Milvus
- Embedding models: OpenAI / Sentence Transformer

3. Implementing RAG

- Index creation
- Query mechanism
- Q&A pipeline with LangChain

4. Hands-on Lab

- Build RAG Q&A system using Pinecone/Chroma
- Retrieve relevant chunks and generate answers
- Benchmark retrieval accuracy (precision, recall)

Module 5: Agentic AI Workflows

1. What is an AI Agent?

- Autonomy
- Multi-step reasoning
- Planning

2. Agent Frameworks

- LangChain Agents
- Semantic Kernel
- CrewAI

3. Tool & API Orchestration

- Tool calling (weather API, DB queries, calculator)
- Multi-step decision-making

4. Hands-on Lab

- Build an AI Agent that calls external APIs
- Demonstrate multi-step reasoning

Module 6: Fine-Tuning & Benchmarking GenAI Models

1. Advanced Fine-Tuning

- LoRA
- QLoRA
- Full fine-tuning
- Domain adaptation

2. Benchmarking & Performance Evaluation

- BLEU, ROUGE, Perplexity
- FID for image models
- Latency, throughput
- Multi-GPU scaling

3. Bias & Robustness

- Identify model bias
- Improve reliability

4. Hands-on Lab

- Fine-tune an LLM on a domain dataset
- Benchmark vs baseline
- Measure improvements, latency, GPU usage

Module 7: MLOps, AIOps & Production Deployment

1. Cloud Platforms & AIOps Pipelines

- CI/CD (GitHub Actions, Jenkins, Tekton)

2. Containerization & Serving

- Docker basics
- Kubernetes vs serverless serving
- FastAPI/Flask model APIs

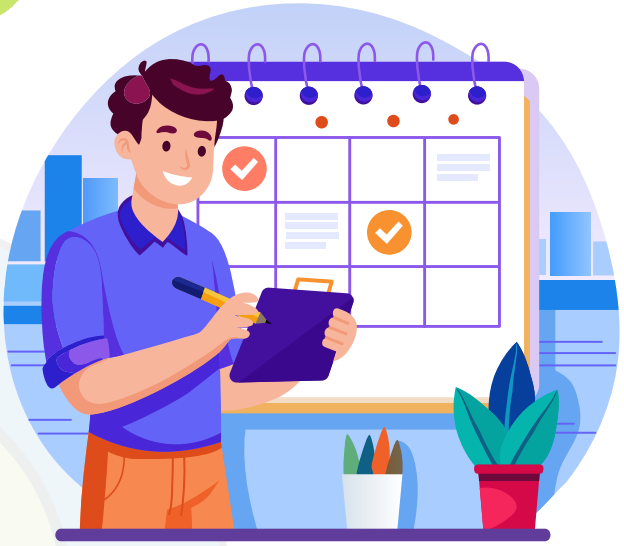
3. Observability & Monitoring

- Logging
- Error handling
- Drift detection
- Dashboards for tracking model reliability

4. Hands-on Lab

- Containerize & deploy AI Agent or RAG system on AWS/GCP/Azure
- Add monitoring & logging

Module 8: Responsible AI, Capstone & Career Readiness



1. Responsible AI

- Bias, fairness
- Transparency
- Data privacy (GDPR, HIPAA)
- Prompt security
- Compliance checks

2. Review & Synthesis

- From ML basics → advanced RAG → Agents → Fine-tuning → MLOps

3. Capstone Project

- Domain-specific dataset
- Fine-tune the model and evaluate with domain metrics
- Deploy cloud pipeline

4. Career Prep

- Resume updates
- LinkedIn optimization
- Interview prep (ML + GenAI + System design)
- Portfolio creation (GitHub, Hugging Face Spaces)

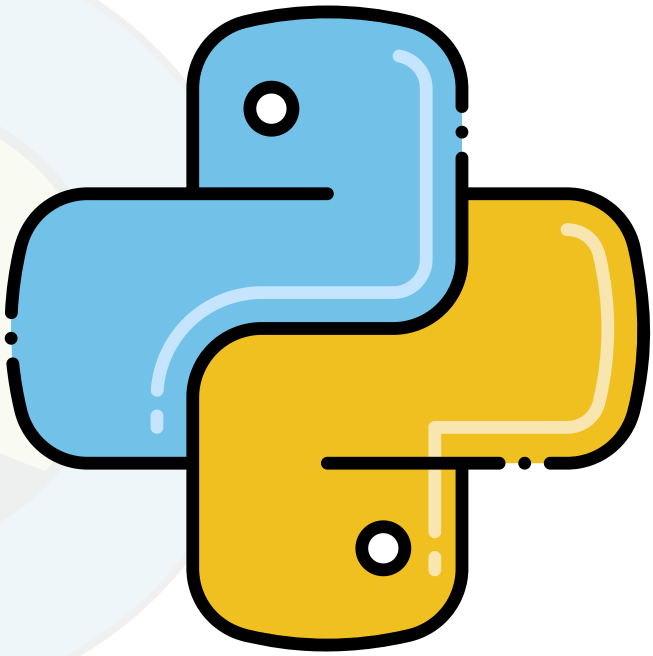
Python Foundations (Beginner Track)

1. Python Basics

- Data types
- Control flow
- Functions
- OOP's overview

2. Data Structures

- Lists, tuples, dict
- List/dict comprehensions
- Decorators (optional)



3. ML Basics

- Scikit-learn
- Train-test split
- Simple classification/regression
- Evaluation metrics

Hands-on Labs

- Lab 1: CSV parsing, summary stats, GitHub push
- Lab 2: Build a scikit-learn classifier
- Lab 3: FastAPI CRUD
- Lab 4: FastAPI + Pytest tests

FastAPI Essentials → Deployment on AWS, Azure, GCP

FastAPI Basics

- Routers
- Pydantic models
- CRUD operations
- OAuth2, JWT overview

Deployment:

AWS

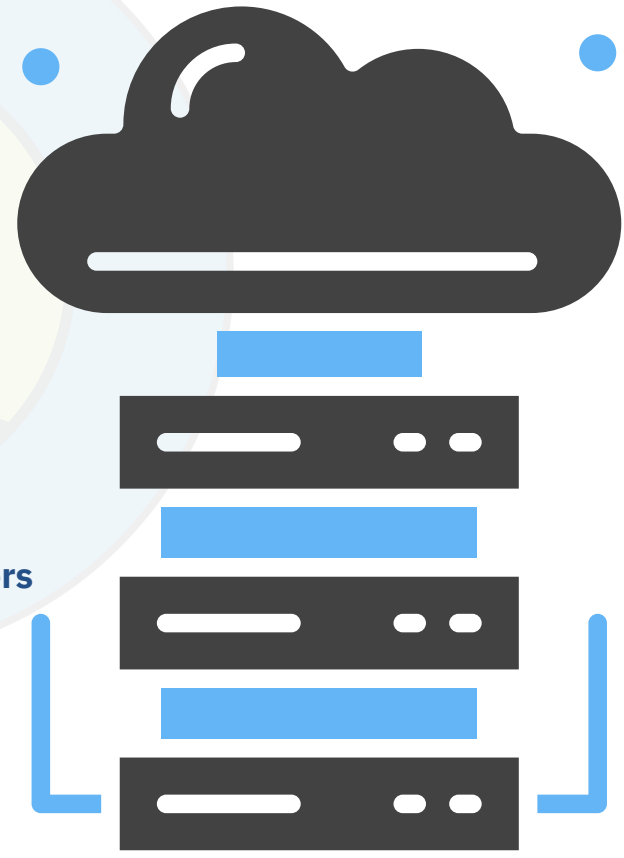
- ECS
- ECR
- Elastic Beanstalk

Azure

- ACR
- Container Instances / Web App for Containers

GCP

- Cloud Run
- Container Registry
- Cloud Build



Hands-on Labs

- Deploy a containerized FastAPI app on AWS
- Deploy on Azure
- Deploy on GCP

Final Summary

Students gain skills in:

- **Python**
- **FastAPI**
- **ML + DL**
- **CNNs, RNNs**
- **Transformers + LLMs**
- **RAG**
- **Agentic AI**
- **Fine-tuning (LoRA, QLoRA)**
- **MLOps, AIOps**
- **Multi-cloud deployment**
- **Responsible AI**
- **Capstone + career prep**

By the end, learners can build production-ready generative AI systems, deploy them on the cloud, and develop real-world AI-powered applications.

Coding MASTERS
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Ready for job

Build a strong resume, practice interviews, and get placement support to kickstart your career confidently.

LEARN THE SKILLS BUILD REAL PROJECTS. GET INTERVIEW READY

- RESUME BUILDING
- MOCK INTERVIEWS
- Q&A SESSIONS
- HR INTERVIEW QUESTIONS
- PLACEMENT ASSISTANCE

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Our Recent Placed Students

At **Coding Masters**, our faculty team comprises talented and experienced professionals with several decades of real-world industry experience. Our teaching style is tailored to meet **industry requirements**, ensuring no wasted effort or opportunity for learners. We are dedicated to empowering aspiring professionals with the skills they need to excel in the ever-evolving tech landscape. Known for offering the best **GENAI With AGENTICAI ENGINEERING training in Hyderabad**, Coding Masters blends innovation, hands-on learning, and industry relevance.

Our mission is to bridge the gap between **academic knowledge and industry** expectations by providing high-quality training in **GENAI With AGENTICAI ENGINEERING** and more. Guided by experts like **Subba Raju Sir**, every student receives personalized mentorship and a transformative learning experience.