



# Generative AI

# About Us

Learnify is the MSME and Startup India verified destination for professionals in product, growth, design, management, business, tech, and data. It provides curated, hands-on learning from industry experts to instantly enhance skills, foster innovation, and empower you within a global community.



# Our Vision & Mission

Learnify, MSME and Startup India verified, teaches millions technical skills with expert-led, hands-on courses for career growth.



## VISION

The vision of Learnify is to revolutionize education through the seamless integration of technology, creating a direct path from skill acquisition to job readiness.



## MISSION

Our mission is to provide personalized and engaging learning experiences for students of all ages by leveraging digital tools, virtual platforms, and data-driven insights to ensure effective skill mastery and career readiness.

# Generative AI

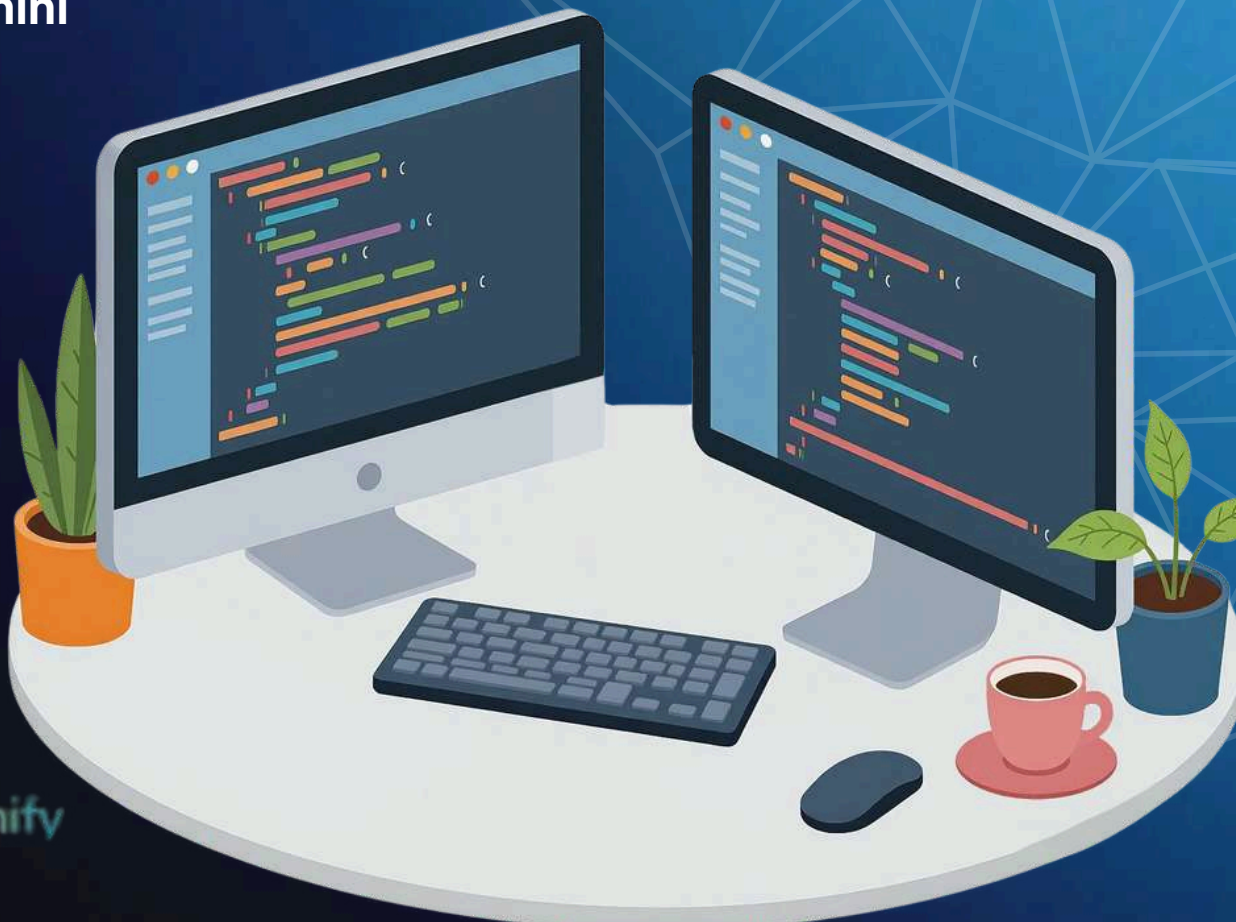


## COURSE CURRICULUM

1.

### INTRODUCTION TO GENERATIVE AI

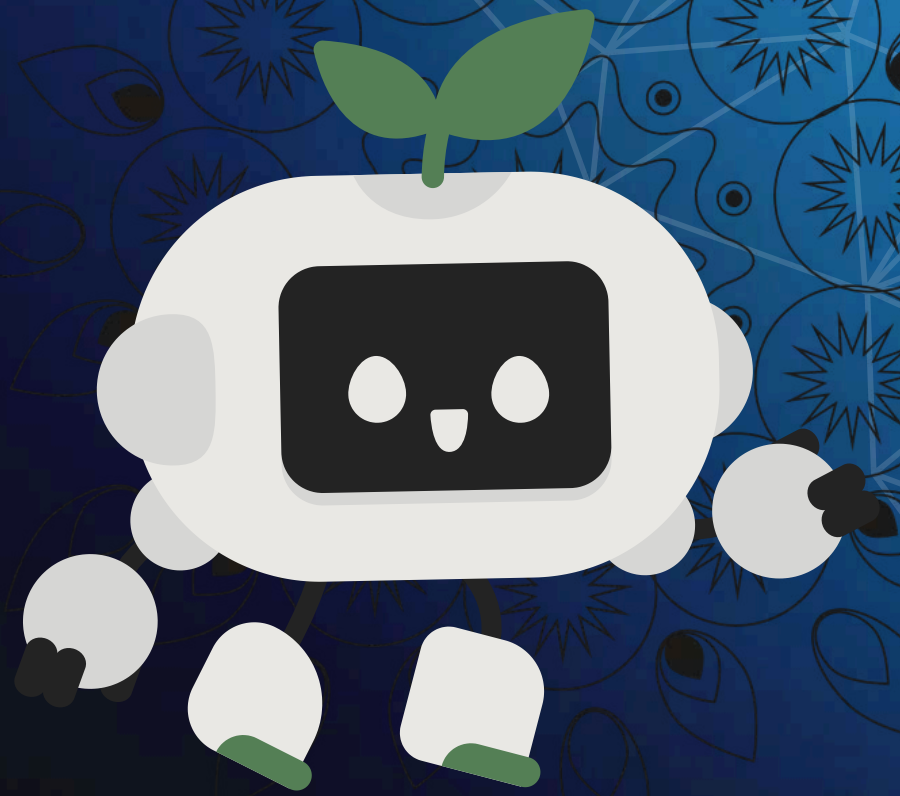
- AI, Machine Learning, Deep Learning overview
- What is Generative AI (GenAI)?
- Types: Text, Image, Audio, Code, Video Generation
- Popular models: GPT, Stable Diffusion, DALL-E, Claude, Gemini



## 2.

## PYTHON & DATA FOUNDATIONS FOR AI

- Python basics for AI (NumPy, Pandas, Matplotlib)
- Data preprocessing & visualization Introduction to datasets for text,
- image, and audio generation



## 3.

### NEURAL NETWORKS & DEEP LEARNING FUNDAMENTALS

- Artificial Neural Networks (ANNs)
  - CNNs (for images) and RNNs/LSTMs (for sequences)
  - Loss functions, optimizers, and activation functions
- Intro to TensorFlow & PyTorch



## 4. NATURAL LANGUAGE PROCESSING (NLP)

- Tokenization, embeddings, and attention
- Pretrained models (BERT, GPT-2, GPT-3)
- Prompt engineering basics Text summarization, translation, sentiment analysis



## 5. GENERATIVE TEXT MODELS (LLMS)

- Large Language Models (LLMs) architecture
- GPT, LLaMA, Mistral, Claude, Gemini overview
- Fine-tuning with custom datasets
- Using OpenAI & Hugging Face APIs



## 6.

## GENERATIVE IMAGE MODELS

- Diffusion models (Stable Diffusion, Midjourney)
- Image-to-image & text-to-image generation
- ControlNet & prompt weighting Art styles,
- creativity, and ethics



## 7.

## AUDIO, MUSIC & SPEECH GENERATION

- Text-to-speech and voice cloning (Tacotron, ElevenLabs)
- Music generation (Jukebox, Mubert API)
- Audio synthesis fundamentals
- Ethics in voice cloning



## 8. VIDEO & ANIMATION GENERATION

- Video synthesis (Runway ML, Pika Labs, Synthesia)
- AI-driven motion capture
- Deepfake technology & detection
- 3D asset generation

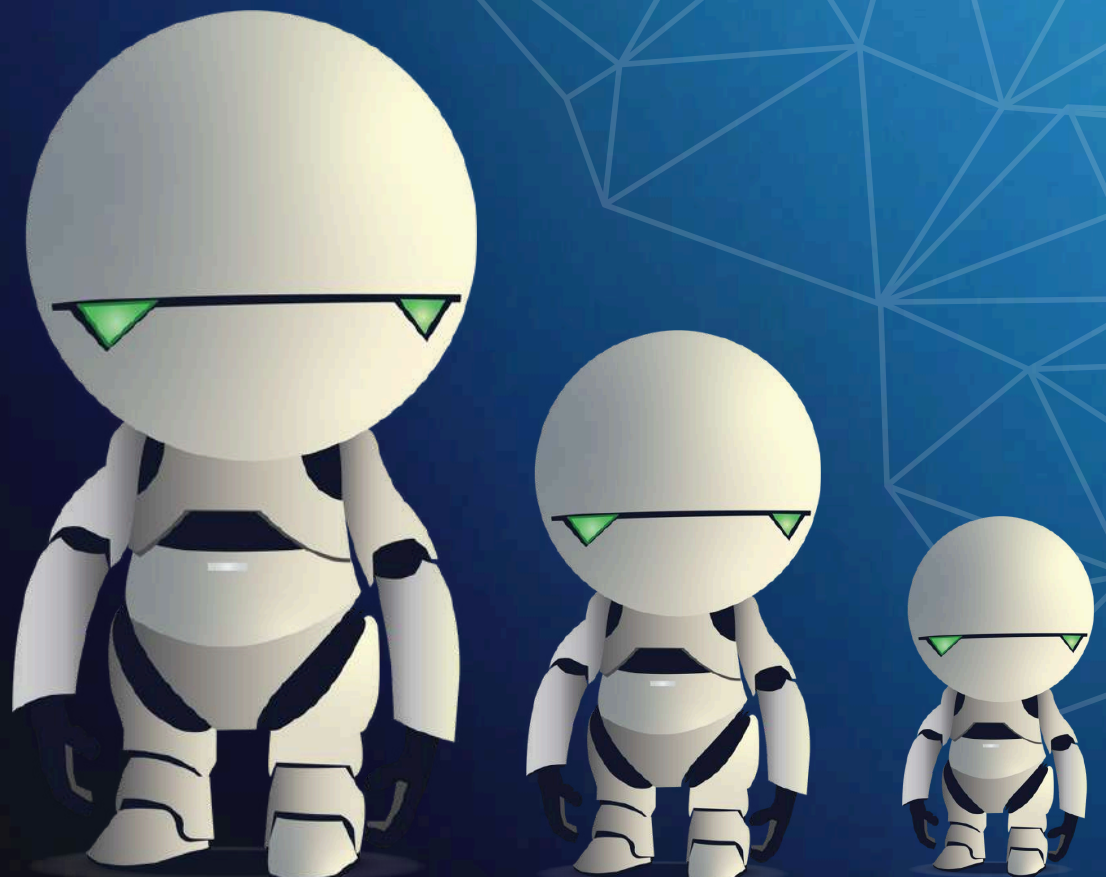


## 9. MULTIMODAL AI & LANGCHAIN

- Multimodal models (CLIP, Gemini, GPT-4V)
- Building chatbots with LangChain & vector databases
- Integrating APIs (OpenAI, Pinecone, Hugging Face)
- Retrieval-Augmented Generation (RAG)

## 10. RESPONSIBLE & ETHICAL AI

- AI bias, hallucination, and misinformation
- Ethical frameworks & regulations (EU AI Act, India AI Policy)
- Model transparency & interpretability
- Fairness and inclusivity in AI outputs



## 11.

## ADVANCED APPLICATIONS & INTEGRATION

- AI in education, healthcare, finance, and design
- Agentic AI (Autonomous GPTs, CrewAI)
- Building APIs for GenAI tools
- Scaling and deploying AI apps



## 12.

## CAPSTONE & RESEARCH PROJECTS

- **Build a Custom AI Content Platform (text + image + voice)**
- **Create a Personalized Learning AI Assistant using LLMs**
- **Design a Multimodal AI Research Dashboard**



## 13.

## RESEARCH-BASED PROJECTS

- **AI-Generated Creativity Analysis — Measuring originality vs plagiarism**
- **Bias in Generative AI Models — Comparative study across open & closed LLMs**
- **Energy Efficiency of AI Models — Carbon footprint analysis of training large models**

## 14. RESUME BUILDING & PROFILE OPTIMIZATION

- **Crafting an ATS-friendly resume tailored to tech roles**
- **Optimizing LinkedIn & GitHub profiles**
- **Writing impactful career objectives and summaries**

### PORTOFOLIO



## 15. APTITUDE & LOGICAL REASONING

- Quantitative Aptitude: Speed, Accuracy & Problem Solving
- Logical Reasoning: Puzzles, Patterns & Data Interpretation
- Mock Tests and Time Management Strategies



16.

## COMMUNICATION & SOFT SKILLS

- **Verbal Communication: Public Speaking & Presentation Skills**
- **Email Etiquette and Business Communication**
- **Teamwork, Leadership, and Professional Behavior**



17.

## TECHNICAL INTERVIEW TRAINING

- Core DS Interview Concepts & Q&A Practice
- Hands-on Coding Interview Sessions (Python & Data Structures)
- Whiteboard Problem Solving & Project Discussion Tips



## 18. HR & BEHAVIORAL INTERVIEW PREPARATION

- Understanding HR Questions & Framing STAR-Method
- Answers Mock HR Interviews with Personalized Feedback
- Building Confidence and Positive Body Language



19.

## INTERNSHIP & JOB ASSISTANCE

- Access to Learnify's Hiring Partner Network
- Internship Opportunities with EdTech & AI Startups
- Job Alerts, Career Counseling & Placement Support



20.

## CERTIFICATION & CAREER SUPPORT

- Learnify Certificate of Completion
- MSME & Startup India Certification
- Resume Building & LinkedIn Optimization



Generative AI

# Our Alumni Work At



**Generative AI**

# Contact Us



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