AI Master Class

From Zero to Hero

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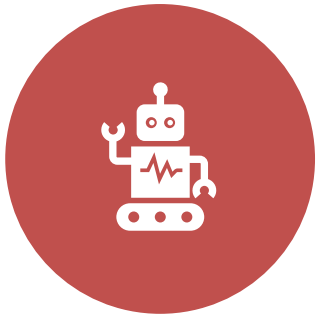
AI Masterclass: From Zero to Hero



Welcome to the AI masterclass!

Learn AI from foundations to state-of-the-art (SOTA) topics.

This course will take you from a complete beginner to an advanced AI practitioner.

Course Overview

- 🔰 Level 1: Foundations of AI (Beginner)
- ⚙️ Level 2: Core AI Concepts (Intermediate)
- 🤖 Level 3: Advanced AI Techniques (Advanced)
- 🚀 Level 4: SOTA in AI - LLMs, Agents, and Deployment (Expert)

Foundations of AI (Beginner)

🎯 **Goal: Build a solid understanding of basic AI, Python programming, and essential math skills.**

📚 **Topics:**

1. Introduction to AI and Machine Learning
2. Python for AI
3. Math for AI
4. Introduction to Machine Learning

💻 Projects: Spam classifier, Data visualization tool

Core AI Concepts (Intermediate)

🎯 Goal: Gain proficiency in key machine learning techniques and neural networks.

📚 **Topics:**

1. Machine Learning Algorithms
2. Feature Engineering and Data Preprocessing
3. Introduction to Neural Networks
4. Deep Learning Basics

💻 Projects: House price predictor, Neural network from scratch

Advanced AI Techniques (Advanced)

🎯 **Goal: Dive into advanced topics like deep learning architectures, generative models, and NLP.**

📚 **Topics**:

1. Deep Learning Architectures (CNNs, RNNs, LSTMs)
2. Generative Models (VAEs, GANs)
3. Natural Language Processing (NLP)
4. Reinforcement Learning

💻 Projects: Image classifier, Chatbot, GAN for synthetic images

SOTA in AI - LLMs, Agents, and Deployment

🎯 **Goal: Master cutting-edge AI technologies like LLMs, autonomous agents, and deployment strategies.**

📚 **Topics:**

1. Large Language Models (GPT, BERT, T5)
2. AI Agents and Autonomous Systems
3. Advanced NLP Techniques
4. AI Deployment and MLOps

💻 Projects: Fine-tuned LLM, Multi-agent system, Cloud-deployed AI app

Final Project

Build a portfolio to showcase your AI skills:

1. Fine-tuned LLM for a custom task

2. Autonomous agent with multi-modal interactions

3. Deployed AI application with monitoring

Tools, Languages, Frameworks

🔰 Programming languages: Python, JavaScript, Dart

⚙️ Tools: Visual Studio Code, Git, GitHub

🤖 Frameworks: TensorFlow, Pytorch, Firebase, Haystack, etc.

🚀 Libraries: Most of AI libraries + anything we'll need for dev