

AI From Scratch

# DATA TO INTELLIGENT AGENTS

A 4-week Intensive Artificial Intelligence Course

## About Program

An intensive 4-week program covering the complete AI pipeline, from foundations to cutting-edge applications. Master data science, machine learning, deep learning, and AI agents. Ideal for rapidly developing practical skills across the full spectrum of modern artificial intelligence technologies.



A Program by



In Collaboration with



Contact us @ 951986844

## Learning Structure

**Daily 1-hour classes**  
**Pre-class readings and resources**  
**Post-class practice exercises**  
**Two daily discussions on Microsoft Teams**  
**Required code submissions**  
**Weekly projects applying learned concepts**

## Course Curriculum

### **Week 1: AI Foundations & Data Science**

Journey of AI, Mathematics & Statistics for AI, Introduction to Data Science, Data Exploration & Cleaning, Visualization Techniques

### **Week 2: Machine Learning Fundamentals**

Linear & Logistic Regression, Decision Trees & Random Forests, Clustering Algorithms & Naive Bayes, Support Vector Machines & Kernel Methods, Advanced Ensemble Methods

### **Week 3: Deep Learning and NLP**

Neural Network Fundamentals, Convolutional Neural Networks (CNN), Natural Language Processing Basics, Recurrent Neural Networks & Advanced Architectures

### **Week 4: Advanced AI and LLMs**

The Story of ChatGPT & Building LLMs, Prompt Engineering Techniques, Retrieval-Augmented Generation (RAG), AI Agent Fundamentals & Architecture, Advanced Agent Capabilities & Applications