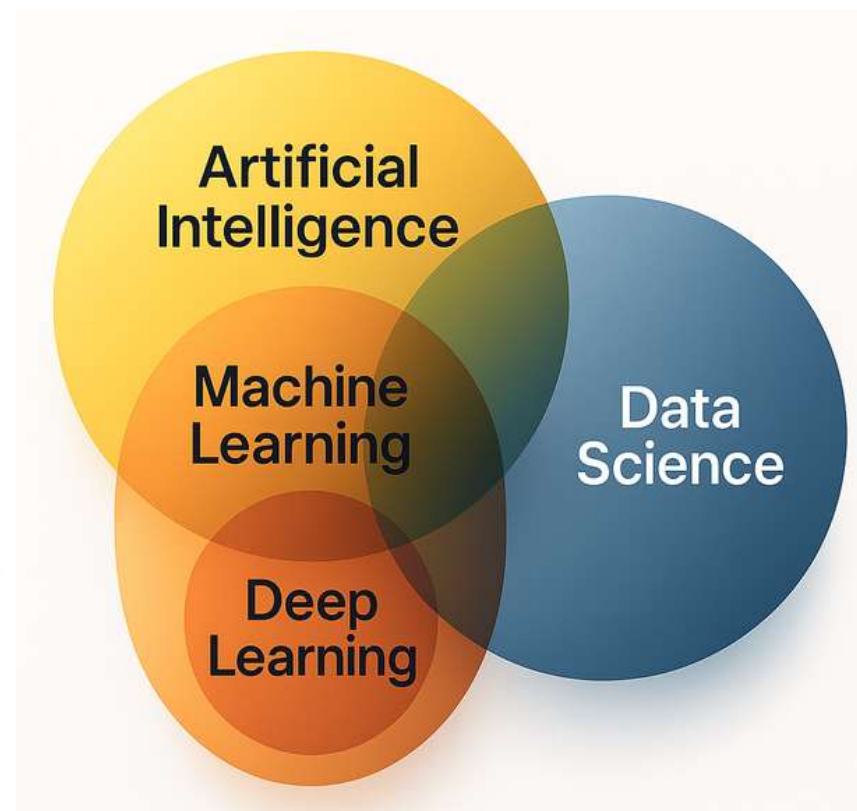
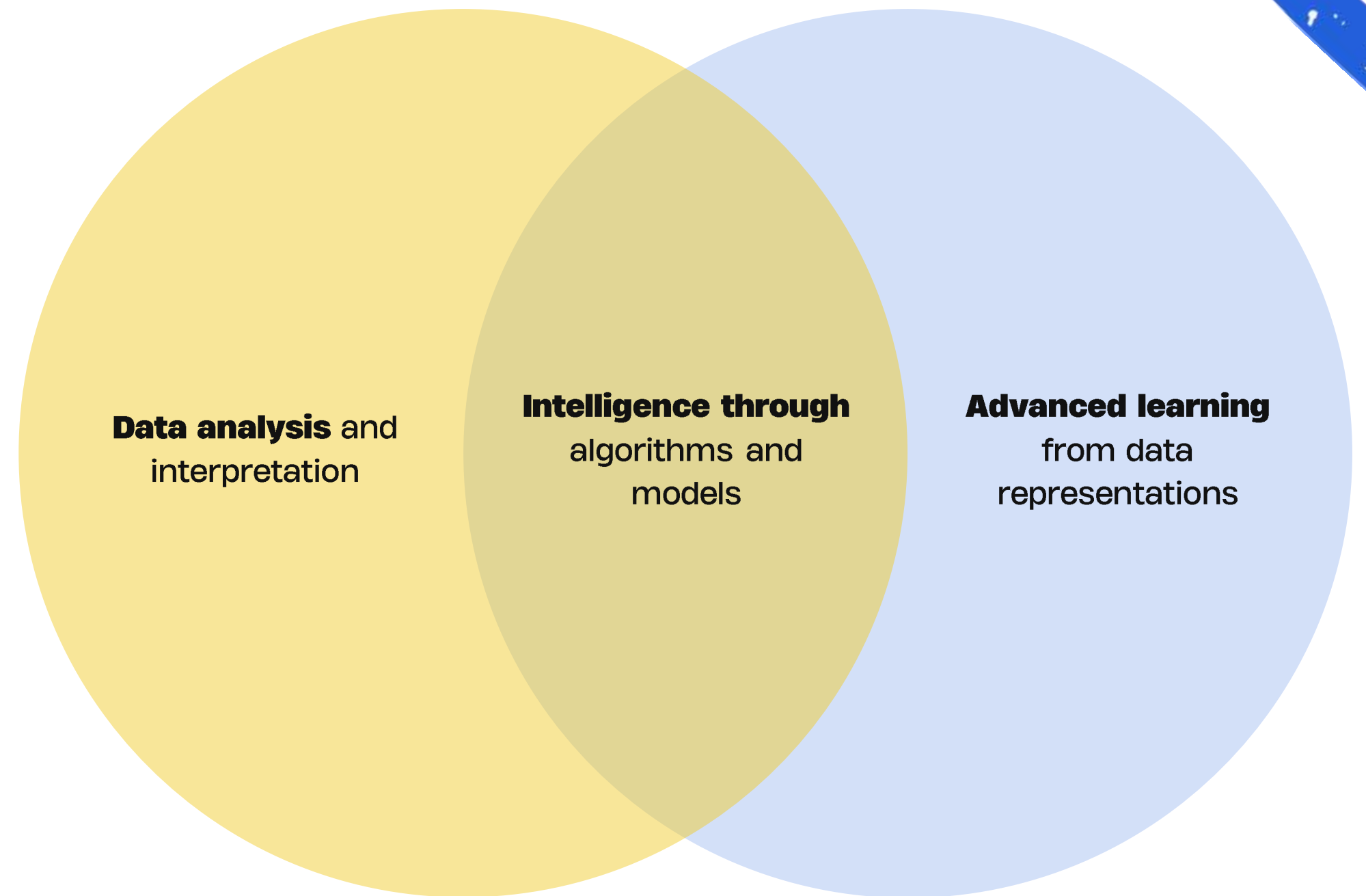


Master LLM, GenAI & Agentic AI

– With Sai Teja

Understanding the transition from
classical ML → Deep Learning → LLM → Generative AI →
Agentic AI





Stage 1 LLM Overview

Learn the foundations of modern language models, how they work, and how to build and evaluate your own AI assistant.



LLM Basics

Transformer Architecture

Tokenization and embeddings

Using Hugging Face Transformers

OpenAI API basics

Prompt engineering

Building your first LLM-powered chatbot

LLM evaluation



Explore AI that creates text, code, images, and audio, and deploy your own multi-modal application.

Gen Ai overview

Code generation & auto-complete

Image generation with Stable Diffusion & diffusers

Build hands on app

via FastAPI



Stage 3 Agentic AI

Build intelligent agents that can reason, use tools, and collaborate to perform complex, automated workflows.

Agentic AI Overview

LangChain basics

OpenAI function calling

Building a simple agent with custom functions

RAG-powered agent (private data search + response)

Multi-agent collaboration with CrewAI / LangGraph

Hands-on: multi-agent

Monitoring, safety, and guardrails for production agents





Playlist Summary:

Total Videos

There are 3 stages * 8 videos to guide your learning journey.

Hands-on Projects and Challenges

Engage with 5 hands-on projects and interactive challenges.

Github Follow along and raise PR's :

Reference and skeleton repo for you to practice along.
<https://github.com/TEJAPS/ML-GenAi-Agentic-tutorial>

Playlist on Machine Learning:

Reference and skeleton repo for you to practice along.
<https://github.com/TEJAPS/ML-GenAi-Agentic-tutorial>

AI Approaches Comparison

Stage	Focus	Typical Python Stack	Mindset Shift
Classical ML	Predictive models (regression, classification, clustering)	scikit-learn, pandas, matplotlib	You design features and choose algorithms
Deep Learning	Neural networks for vision, speech, NLP	tensorflow, keras, pytorch	You design architectures, not just features
LLMs	Pretrained transformer-based models for natural language	transformers (Hugging Face), openai	You leverage pre-trained intelligence and fine-tune for tasks
Gen Ai	Models that create content (text, code, images, audio)	openai, langchain, transformers, diffusers	You orchestrate creative AI
Agentic AI	Autonomous, reasoning, tool-using AI agents	langgraph, autogen, crewAI	You delegate decision-making to AI that can act