Topics in AI

# Version Information

Satya Komatineni, 3/2/24 (Started 3/2/24)

Version 1, Scope: Beginners [See the Document metadata at the end for location on github]

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# Main Topics

1. LangChain
2. Hugging Face
3. Embeddings
4. Vector databases
5. RAG
6. Fine Tuning
7. Ollama
8. OpenAI Custom Agents
9. Key channels, podcasts to look for
   1. What is valuable?
   2. What is fluff?
10. Key Python frameworks

# On the Radar

tbd

# LangChain

1. Prompt Templates
2. LLMs
3. Output Parsers
4. Embeddings
5. LCEL

# Hugging Face

1. Website organization
2. Details Text Generation Inference APIs
3. …and much more

# LLMs

1. Hugging Face
2. OpenAI
3. Llama2

# Vector Databases

1. Chromadb
2. Pinecone

# Core python concepts/frameworks

1. Configuration: TOML, YAML
2. Classes
3. Pydantic

# Supplemental

1. Spacy
2. NLTK

# UI/UX

1. Streamlit
2. Gradio
3. React

# Deployment

1. Docker
2. Podman

# Prompts

Let’s see what to ask the LLMs around this topic.

### Prompt1: A end user as a Developer

What are the new key python libraries in generative AI for developers? I want you to take the role of a key adviser to advise me what I should be focusing on. There is a lot of noise and too many podcasts and too many websites. I want to cut through the noise and provide some concrete set of topics and tools that I should focus on.

What you cover should include

1. What LLMs of promise I should be focusing on? Be they open source or commercial.
2. Some examples are OpenAI, Groq, Llama2, Mistral etc.
3. Agents and Custom Agents
4. Python libraries like LangChain, Hugging Face, with more focus on end used developers as opposed to those that train LLMs.
5. Python Ux libraries
6. Python deployment ai services
7. Python end user website development using AI services
8. Websites
9. Podcasts

# Document Location/Metadata.

Name: topics-in-ai.docx

Repo: <https://github.com/SatyaKomatineni/articles-repo>

Subdirectory: /ai

Current url:

<https://github.com/SatyaKomatineni/articles-repo/blob/master/ai/topics-in-ai.docx>

Note: URL may change if I reorg the subdirectory. But it will be in the general vicinity of this repo.

# Sister Documents

You will find sister documents at

<https://github.com/SatyaKomatineni/articles-repo/tree/master/ai>