AI Foundation
- Intro to genAI
- Prompt Engineering
- Integration with Web App
- MERN workflow

[Frontend + backend + genAI Integration] full stack

Artificial Intelligence

genAI for generative AI
↳ generate images, videos, text, pdf, docs, powerpoint, code, email, compliments, ...
↳ reveal bots, GitHub copilot, AI tools

genAI Workflow
↳ LLMs
↳ ChatGPT, chatbot → Search.
NLP → Natural processing language

prompt instructions

Prompt → [ ] → generate gift, generating

Prompt process → patterns, DNA → vector Database

LLM (Big data) 1 trillion of data

Judge quality, code errors, bugs

↳ user consume
↳ which AI tools use
↳ quality of result
↳ future trends

genAI Tools

Text to text
Prompt → result
↳ openAI chatgpt
↳ claude AI (generate, refine, pdf)
↳ gemini generate, brainstorming.
↳ Coherence
↳ writer.com

Automation
↳ Finance
↳ Legal services
↳ marketing
↳ Education
↳ Healthcare
↳ E-commerce

Text to video
Runway
Pikaslabs
DeepBrain AI Synthesia

Audio to Text
Prompt → result
↳ whisper (openAI)
↳ Assembly AI.
↳ google speech to Text API

Text to image
Prompt → result
↳ Dalle-3 (OpenAI)
↳ Midjourney
↳ Stability AI
↳ adobe firefly.

Prompt text to code
Code generation
↳ github co-pilot
↳ Tabnine.
↳ tabnine.
↳ codeium.

Text to audio
SunoAI
Bonny
Sandbrain

LLM - Large Language Models
↳ trained on large data
↳ deep learning

Input prompt → [ ] → output

AI Tool	OpenAI	Company
chatgpt	gpt4, gpt5	openAI
vendor AI	llama	meta
gemini	Bard	google
	perplexity	microsoft
	chat	

AI Tools
Perplexity
Deepseek

App of AI tools
↳ Student research
they gen
↳ upload / select
↳ customize sentence
↳ Translation
↳ Research
↳ Coding

LLM
↳ crore of current
↳ data of current (Billions, trillions of data)
↳ experts
genAI ↳ product
↳ yes
↳ integration with CSD

Home Assignment
1. Explore hugging
2. Understand cloud AI assistant
   ↳ Lexus
   ↳ Azure
3. generate images using AI Tools
   ↳ Dalle

miro