

ANZIL T

Computer Science and Engineering Student / Aspiring AI/ML Engineer

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SUMMARY

Aspiring AI/ML student with hands-on experience in RAG systems, LangChain, and AI agents. Implemented practical machine learning models. Seeking entry-level opportunities to apply and expand AI/ML skills while contributing to innovative projects.

PROJECTS

AI-Powered Podcast Generator from PDFs • [GitHub](#)

- Developed a 9-stage state machine using LangGraph and Together AI's Llama-3.3-70B, automating content extraction, outline structuring, and dialogue generation.
- Utilized PyPDF for extracting text from PDFs and Suno Bark for high-quality text-to-speech conversion.

Multimodal Retrieval Augmented Generator (MM-RAG) • [GitHub](#)

- Engineered a parallel processing pipeline using Google Gemini-2.0 Flash and ChromaDB, handling both text and image-based content.
- Processed text chunks, summarizing large sections with a customized prompt-based approach.
- Extracted and vectorized image-based research diagrams, integrating them into retrieval-augmented generation (RAG) pipelines.
- Implemented a multi-vector retriever with an in-memory document store, improving search efficiency for long-form academic documents.

Neural Network Perceptron • [GitHub](#)

- Built a custom perceptron model from scratch using NumPy, training it on logical AND/OR operations with gradient descent.
- Implemented forward propagation, loss computation, and backpropagation, optimizing learning rates for faster convergence.

Text Recognition Android Application • [GitHub](#)

- Developed a mobile application in Java with Google ML Kit OCR, achieving high-accuracy text extraction from images.
- Integrated Android TextToSpeech API, enabling users to convert scanned text into natural-sounding speech output.
- Designed an intuitive bottom-sheet UI for displaying extracted text, enhancing user interaction and accessibility.

AI Personal Tutor

*Project currently under development with ongoing progress***

- Building an intelligent tutoring agent that structures personalized courses from syllabus PDFs and reference materials.
- Implements multimodal RAG to retrieve text, images, and tables from study materials.
- Uses text-to-speech (TTS) and speech-to-text (STT) to enable interactive learning sessions.
- Designed to teach concepts, ask questions, and evaluate students dynamically.
- Built with LangChain, LangGraph, Suno Bark, and Streamlit for an intuitive UI.

CERTIFICATIONS

- Hugging Face Agents Course** 03/2025
[Certification for completion of Fundamentals of Agents](#)

EDUCATION

Government Polytechnic College Meppadi

Wayanad, Kerala, India

Diploma in Computer Engineering

2021- 2023

- Successfully completed Diploma in Computer Engineering.
- Achieved a GPA of 7.00.

Cochin University Of Science and Technology (CUSAT)

Alappuzha, Kerala, India

B-Tech in Computer Science and Engineering

2024- Present

SKILLS, INTERESTS & LANGUAGE

Skills: Python | LangChain | LangGraph | Machine Learning & AI | ChromaDB | Natural Language Processing (NLP) | Teamplayer | Presentation | Graphic Designing | Data Engineering | Retrieval Augmented Generation | Computer Vision |

Interests: Graphic Designing, Travel, Music

Language: Malayalam (5/5), English (4/5)