Akshath Reddy Yennam

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EDUCATION

2024 - 2027	BEng Computing at **Imperial College London**	(**First Class** in Year 1)
2022 - 2024	A Levels at Sancta Maria International School	(**Valedictorian**, 4 A*, 1 A)

WORK EXPERIENCE

ValueLabs, *Applied AI Engineering Intern* — Jul 2025 – Sep 2025

- Redesigned and optimized a JD-to-resume semantic search system with Qdrant vector DB, improving accuracy and cutting response times by **15x** from **90s** to **6s**.
- Developed a GPT-Realtime based voice interviewer using a multi-agent architecture to manage phase-by-phase control and context-aware handoffs.
- Implemented real-time speech pipelines for the interviewer, integrating low-latency transcription, response generation, and text-to-speech with prompt guardrails to ensure relevance, tone control, and reduced hallucinations.
- Built a sales meeting assistant with a hybrid RAG pipeline (achieving **90%** accuracy), enhancing retrieval via multi-query rewriting, RRF scoring, and contextual memory.

Heavenly Joy Foundation, *Technical Consultant Volunteer* — May 2025 – Present

- Volunteering to develop a responsive website and mobile app (iOS and Android) for a charity organization.

ValueLabs, *Intern* — Jul 2023 – Aug 2023

- Gained foundational experience in machine learning through regression, clustering, and natural language processing with transformers.
- Built sentiment analysis and text classification models, and developed an image classifier using CNNs.
- Explored computer vision concepts and neural network architectures at a high level.

PROJECTS

Deep Research Agent

- Designed an agentic research workflow using LangGraph and DeepAgents with an orchestrator and specialized sub-agents.
- Planned parallelized sub-query research with shared virtual filesystem, fact-checking, and final synthesis into structured reports.

Emulator & Assembler with Audio Synth Extension

- Collaborating on building a low-level emulator and assembler from scratch in C, simulating a custom instruction set architecture.
- As an extension, developing a synthesizer, using SDL3 library, that maps keyboard inputs to sound playback at the machine level, demonstrating low-level I/O handling and creative hardware interfacing.

Summit - AI companion for planning & focus

- Summit is a conversational multi-agent system built with LangGraph that manages tasks, schedules, and user preferences.
- It persistently stores tasks and profiles, detects scheduling conflicts, and suggests which tasks to focus on next based on deadlines, priority, and the user's mood and energy.

Stock Price Predictor

- Developed a stock price prediction model using Recurrent Neural Networks (RNNs) with LSTM layers, achieving **80%** testing accuracy.

SKILLS & CERTIFICATIONS

Programming Languages	Python, JavaScript, Kotlin, Java, C, HTML/CSS, Haskell
Technical/Frameworks	RAG, Langgraph, Agentic AI Systems, Speech-to-Speech AI, GPT-Realtime, Git, React, Node
Certificates	Introduction to LangGraph, MITx Introduction to CS, Harvard CS50