

# Akshath Reddy Yennam

 Akshath47 |  Akshath Yennam |  akshathyennam@gmail.com |  +44 7440 048323 / +91 93982 96838

## 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 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, 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 (Group Project)

- 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 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.

## SKILLS & CERTIFICATIONS

**Programming Languages** Python, JavaScript, Kotlin, Java, C

**Technical** RAG, Langgraph, Agentic AI Systems, Speech-to-Speech AI, GPT-Realtime

**Certificates** Introduction to LangGraph, MITx Introduction to CS, Harvard CS50