

# Kausik D

Chennai, IN — [kausikdevanathan@gmail.com](mailto:kausikdevanathan@gmail.com) — +91 63695 75179 — Portfolio —  
[linkedin.com/in/kausik-devanathan](https://linkedin.com/in/kausik-devanathan) — [github.com/Kaus1kC0des](https://github.com/Kaus1kC0des)

## Education

### St. Joseph's College of Engineering

Nov 2022 – May 2026

B.Tech in Artificial Intelligence and Machine Learning

- GPA: 8.06/10.0
- **Coursework:** Foundational Mathematics, Machine Learning, Neural Networks, Deep Learning, Software Engineering

## Experience

### Software Engineer Intern

Chennai, IN

Qik Meetings

Aug 2024 – Present

- **Architected and deployed real-time multi-stream transcription backend**, processing concurrent meeting audio using event-driven architecture with **Socket.IO** and FastAPI.
- **Optimized backend infrastructure on AWS and GCP**, implementing containerized microservices with Docker and CI/CD pipelines via GitHub Actions for continuous deployment.
- **Developed and scaled a Retrieval-Augmented Generation (RAG) engine**, integrating LangChain and LLM APIs (OpenAI, Gemini) to enable semantic data retrieval from archived meetings.
- **Implemented robust backend testing, caching, and observability layers** using PyTest, Redis, and structured logging for scalable, fault-tolerant AI systems.

## Projects

### Project Nethran

[GitHub Link](#) 

- Developed AI-powered assistive eyewear using **YOLO-World** for object detection and CNNs for sign language recognition to assist visually and hearing-impaired users.
- Deployed lightweight models on Raspberry Pi and Flask backend for real-time inference over limited edge hardware.

### RAG Knowledge Base

[GitHub Link](#) 

- Built a LangChain-powered knowledge retrieval platform for institutional data using a scalable backend with **FastAPI**, **Next.js**, and multi-database integration (PostgreSQL, MongoDB, Redis).
- Designed REST APIs and asynchronous data pipelines for concurrent query handling and optimized embedding retrieval.
- Focused on **responsible AI deployment** by adding safety layers to filter sensitive or misaligned outputs from LLMs.

## Technical Skills

**Languages:** Python, Java, JavaScript, SQL

**Backend & APIs:** FastAPI, Node.js, Express, Socket.IO, RESTful APIs, Microservices Architecture, Event-Driven Systems

**Machine Learning:** PyTorch, Scikit-Learn, LangChain, LLM APIs (OpenAI, Gemini), RAG Systems, NLP, Deep Learning

**Cloud & DevOps:** AWS, GCP, Docker, CI/CD (GitHub Actions, GitLab), Redis, Load Balancing, Performance Optimization

**Databases:** PostgreSQL, MySQL, MongoDB

**Practices:** Version Control (Git), Caching, Observability, Secure and Scalable Design