# Kausik D

 $\blacklozenge$  Chennai, IN  $\qquad \boxtimes$  kausik<br/>devanathan@gmail.com  $\qquad \backprime +91\text{-}63695\text{-}75179 \qquad \mbox{\o mathematical www.kausik.codes}$ 

#### Education

## St. Joseph's College of Engineering

Nov 2022 - May 2026

B. Tech in Artificial Intelligence and Machine Learning

o GPA: 8.06/10.0

o Coursework: Foundational Mathematics, Machine Learning Algorithms, Neural Networks, Deep Learning

# Experience

#### Software Engineer Intern

Chennai, IN

Qik Meetings

Aug 2024 - Present

- Built an end to end Speaker Diarization pipeline enabling speaker tagging in in-person meeting.
- Developed and maintained GPU-intensive cloud infrastructure to support the existing features, ensuring low latency and high concurrency.
- Built a RAG system, which enables users to query information on previous meetings, action items, and minutes, providing Actionable Business Intelligence. Engineered an optimized backend enabling low latency and smooth user experience.
- Designed and built a **semantic query engine**, which allows users to query and retrieve data based on both keywords and natural language.

# **Projects**

**Project Nethran** 

GitHub Link

- Developed AI-powered assistive eyeglasses with YOLO-World for object detection and CNN (91% accuracy) for sign language recognition to support visually and hearing impaired
- o Tools Used: Python, PyTorch, Google Cloud Platform, Flask, Rapberry Pi 0

## YouTube Comment Sentiment Analysis Platform

GitHub Link

- Built a deep learning-powered web application for analysing viewers comments on a YouTube video achieving a 98% accuracy using fine-tuning on BERT.
- o Tools Used: Python, PyTorch, Flask, Git, Docker, Heroku, GitHub Actions

#### RAG Knowledge Base

GitHub Link 🗹

- Built a RAG system that acts as a knowledge base for educational insitutions and empowers students to gain in-depth knowledge about their curriculum.
- Leveraged **SoTA** models like **Gemini**, and used **MinerU algorithm** to extract and structure data from different sources.
- Built a robust and **scalable web application** that allows students to query upon and learn from their study materials effectively.
- o Tools Used: Next.js, FastAPI, PyTorch, Git, PostgreSQL, MongoDB, Redis, Google Cloud Platform

## Technical Skills

Languages: Python, Java, SQL,

Databases: MySQL, PostgreSQL, MongoDB

Machine Learning: Scikit-Learn, PyTorch, Supervised Algorithms, Neural Networks, Computer Vision, NLP,, Text Classification, Entity Recognition, Prompt Engineering, RAG Systems

Cloud Platforms: AWS, Heroku, GCP

Other Tools: Git, GitHub Actions, Docker, VMWare, W&B, GitLab