Mohammed Mafaaz Chandwale
Software Engineer — Gen AI Enthusiast

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EDUCATION

Cambridge Institute of Technology
B. Tech Information Science and Engineering; GPA: 9.07

Bengaluru, Karnataka
Dec. 2020 – Aug. 2024

EXPERIENCE

Samsung Research Institute Bengaluru
Intern

Bengaluru, Karnataka
May 2024 - Oct 2024

- **Voice Intelligence Optimization**: Enhanced Bixby's voice recognition accuracy by fine-tuning language models, significantly improving user experience across supported devices.
- **Generative AI for NLP**: Researched and applied Generative AI techniques to natural language tasks using Hugging Face LLMs, driving improvements in language understanding and generation.
- **AI Development Stack**: Engineered scalable AI solutions using Python, Django, LangChain, LangGraph, and OOP principles, contributing to robust backend intelligence pipelines.
- **Automation Efficiency**: Developed automation scripts in Python, reducing manual data processing time by 30% and streamlining internal workflows.

Samsung Research Insititute Bengaluru
PRISM Intern

Bengaluru, Karnataka
Nov 2022 - Nov 2023

- **Wear OS APK Sideloading App**: Developed an Android application enabling seamless sideloading of APK files up to 50MB for Samsung Wear OS, surpassing original size limitations.
- **Real-Time Transfer Interface**: Designed and implemented an intuitive UI using Android SDK, Java, and XML for real-time monitoring of file transfers, enhancing user interaction and debugging efficiency.

PROJECTS

- **Universal Multi-Agent Support Chatbot**: Developed an AI-driven chatbot with a multi-agent architecture that includes a Web Scraping Agent and Orchestrator Agent. Enabled real-time data extraction and improved user interaction by integrating LangChain, Hugging Face models, and Streamlit for dynamic querying and response generation.
- **Semantic Vector Search using RAG Pipeline**: Built a RAG-based (Retrieval-Augmented Generation) search system that combines vector similarity retrieval with generative AI to produce contextually accurate answers. Integrated Hugging Face Transformers with MongoDB Atlas Vector Search to ensure relevance and semantic understanding.
- **Google Sheet Clone Using ReactJS**: Developed a front-end clone of Google Sheets with features like dynamic cell resizing, range functions (SUM, AVG, MIN, MAX), and responsive UI components. Demonstrated mastery of ReactJS and JavaScript for building performant, interactive UIs.
- **Blog Post Application**: Created a full-stack blogging platform using Node.js, Express, MongoDB, and ReactJS. Integrated an AI-based image generation feature that automatically creates relevant images based on the blog's category using text-to-image models. Enabled dynamic routing, post management, and enhanced user engagement through rich visual content and seamless publishing workflows.
- **E-Commerce AI Analytics Dashboard**: Built a full-stack platform for Shopify and Amazon sellers to track KPIs and gain AI-powered business insights. Used FastAPI, PostgreSQL, Redis, Celery, and LangChain to compute metrics like revenue and AOV. Designed a responsive frontend with React, Tailwind CSS, and shadcn/ui, featuring JWT + Google OAuth login, visual dashboards, and an AI assistant for natural language queries.

PROGRAMMING SKILLS

- **Languages**: Python, JavaScript, TypeScript, Java, SQL, HTML, CSS
- **Technologies**: ReactJS, Node.js, Express.js, MongoDB, FastAPI, LangChain, Hugging Face, Streamlit, Tailwind CSS, Celery, Redis, PostgreSQL, JWT, Google OAuth, shadcn/ui

CERTIFICATES

- **Microsoft Azure Fundamentals**: AZ-900
- **Microsoft AI Fundamentals**: AI-900