

SANJANA MAHMOOD

852-59607512 | sanjana.mahmood10@gmail.com | [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

TECHNICAL SKILLS

- Programming Languages: Python, JavaScript, Java, C
- Web Development: React, Next.js, Node.js, Flask, MongoDB, PostgreSQL, MySQL
- AI & Generative Systems: PyTorch, Langchain, OpenCV
- Tools and Cloud: Git, Docker, Linux, Agile

WORK EXPERIENCE

Software Developer | GaiaMine Limited

April 2024-Present

- Built a tokenized investment platform with smart contract-based asset ownership and crowdfunding; developed the full-stack application using **React**, **TypeScript**, **Node.js**, and **MongoDB**, supporting **99%+** production uptime.
- Designed and deployed **Genesis** smart contracts for crowdfunding functionalities using **Solidity**, including token minting logic and contribution tracking on the blockchain.
- Implemented **MetaMask** wallet integration for secure user authentication and transaction signing, enabling seamless on-chain interactions within the application.
- Created **Docker-based CI/CD pipelines** using **GitHub Actions**, reducing deployment errors by ~60% and enabling automated environment provisioning and versioned rollouts.

Cyber Risk Analyst | Deloitte Advisory (Hong Kong) Limited

Sept 2023 – Sept 2024

- Developed a Data Privacy assessment platform using React, Survey.js, Node.js, PostgreSQL to automate client compliance reviews.
- Optimized backend queries and refactored codebase, reducing SQL execution time by 15%.
- Optimized infrastructure monitoring with Azure Monitor, achieving 30% faster response time and 99.8% uptime.
- Automated DLP processes using Python and PowerShell, reducing manual efforts by 50%.

Research Assistant (Internship) | The Chinese University of Hong Kong

June 2022-Aug 2022

- Designed and implemented a real-time human pose estimation pipeline using PyTorch, OpenCV, and FastAPI to predict aerosol spread patterns from RGB-D data.
- Built a 3D reconstruction service with Open3D, reducing visualization latency by 35% via asynchronous streaming.

KEY PROJECTS

PDF RAG Application (Azure OpenAI, LangChain, BullMQ, QDrant, Next.js, Express.js)

[GITHUB](#)

- Built an end-to-end RAG system enabling semantic search and chat over PDF documents using OpenAI embeddings and QDrant vector search, achieving ~250ms retrieval latency and ~85% context relevance accuracy.
- Implemented an asynchronous PDF ingestion and embedding pipeline with **BullMQ**, reducing upload blocking time from ~15s to <500ms, and developed the full-stack interface and server using **Next.js** and **Express.js**, respectively.

URL Shortener (React, Vite, Tailwind, Supabase, Recharts)

[GITHUB](#)

- Built a URL shortener with custom aliases, QR codes, and Supabase backend achieving ~250–400ms redirect latency locally and ~1.1s P95 create→redirect.
- Implemented per-link click analytics (device type and geo region) and visualized insights in a **Recharts** dashboard.

AI Resume Analyser (Streamlit, Gemini 2.5 Flash)

[GITHUB](#)

- Built a resume analyzer with Streamlit + Gemini 2.5 Flash; parses uploaded PDF resumes and evaluates against a pasted Job Description, delivering responses in ~2–4s.
- Implemented two evaluation modes (qualitative review + percentage match with missing keywords) using prompt-engineering.

EDUCATION

B.Sc. in Computer Science | The Chinese University of Hong Kong

Sept 2019- July 2023

- 100 % Belt and Road Scholarship.
- Faculty of Engineering Scholarship CUHK with HKD 30,000 stipend renewed annually for 4 years.

**Career gap between Sept 2024 and Dec 2024 because of travelling back to home country for family urgency*