Manfred Fong

Bachelor of Science
University at Albany, New York

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PROFESSIONAL SUMMARY

Software Engineer with experience in building scalable applications, AI integration, and backend development. Expertise in delivering high-performance solutions using Python, FastAPI, React, and MongoDB. Skilled in designing RESTful APIs, implementing asynchronous systems, and leveraging AI frameworks to solve complex problems.

EDUCATION

•**Bachelor of Science in Computer Science, Minor in Informatics** *2020-24 (Graduated July 2024)*
University at Albany, New York

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, HTML/CSS
Frameworks & Libraries: React, FastAPI, LangChain, Express.js, Angular, Tailwind CSS, Bootstrap
Tools & Databases: Docker, Git, Node.js, VS Code, Railway, Vercel, MongoDB, MySQL

KEY PROJECTS

•**IBM GenAI Multimodal User Profile Generator** *Lead Developer | LangChain-enabled AI assistant*
○ *GitHub* Feb - Aug 2024

 – Developed a chatbot to scrape and analyze content from up to **100 websites**, effectively managing token constraints
 – Achieved **90% response accuracy** by implementing local memory features and advanced NLP techniques
 – Optimized performance, maintaining **99.9% uptime** and reducing response time by **25%**
 – **Tech Stack:** Python, OpenAI, LangChain, MongoDB, TavilyAI

•**Kami - Discord Bot for Minecraft** *Solo Developer | AI-powered gaming assistant*
○ ☒ Oct 2023 - Jan 2024

 – Developed a RESTful backend using **FastAPI**, supporting **100+ users** with API response times under **200ms**
 – Integrated **LangChain** and **OpenAI**, achieving **92% accuracy** in AI-generated gameplay insights
 – Engineered asynchronous data storage with **MongoDB**, managing **500+ coordinates** with zero data loss
 – **Tech Stack:** Python, LangChain, FastAPI, MongoDB, Docker, Railway

•**Algorithms Visualizer** *Full-Stack Developer | Sorting algorithm visualization tool*
○ ☒ Mar - Jun 2023

 – Optimized performance, achieving a **35% faster** load time with **95+** performance scores across devices
 – Enhanced visualization with real-time color-coded animations and interactive step-by-step controls
 – Deployed via Vercel with responsive design across **7+ screen sizes** and custom routing
 – **Tech Stack:** React, TypeScript, Tailwind CSS

PROFESSIONAL EXPERIENCE

•**Institute of Electrical and Electronics Engineers (IEEE) - UAlbany Student Branch** *Jan 2022 - Aug 2024*
Technical Workshop Coordinator & Web Developer In-Person

 – Served as founding team member of Hackadamian, UAlbany's now annual hackathon, establishing event structure and technical infrastructure
 – Designed and developed the official Hackadamian website using React and Tailwind CSS, increasing registration by **40%**
 – Conducted **250+ hours** of programming workshops on APIs and web development for **100+** students
 – Served as liaison between industry professionals from IBM, Celsius, and Wolfjaw Studios to secure sponsorships and technical partnerships

ADDITIONAL INFORMATION

Coursework: Data Structures & Algorithms, Operating Systems, OOP, Database Management, Software Engineering
Interests: Web Development, Artificial Intelligence, Prompt Engineering
Soft Skills: Problem-Solving, Self-Learning, Communication, Teamwork, Adaptability