

Manfred Fong

Bachelor of Science
University at Albany, New York

+1-646-255-3336
fongmanfred@gmail.com
GitHub
LinkedIn Profile

EDUCATION

•**Bachelor of Science in Computer Science, Minor in Informatics** *2020-24*
University at Albany, New York

PERSONAL PROJECTS

•**IBM Sponsored GenAI Multimodal User Profile Generator** *Lang-chain Enabled General AI prompt based assistant*
Feb 2024-August 2024
GitHub

- Enabled chat-bot to scrape the five sites within the 4000 token limit and used 20 batches to scrap 100 sites
- Achieved 90% context response accuracy by implementing local memory feature with advanced N.L.P.
- Optimized for performance, achieved 99.9% uptime; reduced response time by 25%.
- Technology Used: Python, OpenAI, LangChain, MongoDB, TavilyAI.

•**Personal Portfolio Website** *My digitized resume*
GitHub

- Incorporated an interactive and user-friendly interface featuring animations, transitions, and intuitive navigation to engage visitors and highlight key content.
- Implemented fluid layouts and media queries, ensuring optimal viewing experience across seven device types ranging from desktops (1920PX) to mobile (320PX)
- Technology Used: Tailwind, React.js, Bootstrap, Vite.

•**Algorithms Visualizer** *A React-based web application that allows users to visualize sorting algorithms.*
GitHub

- Optimized performance, achieving a 35% faster initial load time through server-side rendering and code splitting, with 95+ performance scores on mobile and desktop.
- Enhanced visualization clarity by incorporating real-time color-coded bar animations and interactive controls, allowing users to observe sorting steps in action.
- Deployed via Vercel with custom routing and 404 handling, enabling seamless navigation and responsive design across 7+ screen sizes, from mobile to desktop.
- Technology Used: React, TypeScript, Tailwind.

•**Assembler Program** *An assembler program that takes text as input and outputs bits corresponding to that text.*
GitHub

- Converted thousands of interrelated data points (100MB) into a single equation through interpolation.
- Incorporated a lexical analyzer for encoding and decoding, with internal storage up to 1000 tokens
- Implemented error detection to report syntax errors, undefined symbols, and invalid instructions
- Technology Used: Java

EXPERIENCE

•**Institute of Electrical and Electronics Engineers** *Jan 2022 - Aug 2024*
Team Member *In-Person*

- Spearheaded over 250 hours of hands-on mastery of programming fundamentals, data structures & algorithms
- Conducted programming training workshops on API and Web Development using Python, Java, JavaScript
- Liaison between industry professionals from IBM, Celsius, and Wolfjaw Studios to secure sponsorships, mentorship programs, and workshops

TECHNICAL SKILLS AND INTERESTS

Languages: Java, Python, JavaScript, TypeScript, HTML+CSS

Libraries :Python Libraries,Tailwind-CSS, Bootstrap, ExpressJS

Web Dev Tools: NodeJS, VS-code, Git, GitHub

Frameworks: Lang-Chain, ReactJS, Angular

Cloud/Databases:MongoDB, Relational Database(MySQL)

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Object Oriented Programming, Database Management System, Software Engineering.

Areas of Interest: Web Design and Development, Artificial Intelligence, Prompt Engineering.

Soft Skills: Problem-Solving, Self-learning, Presentation, Adaptability, Communication, Teamwork