Kazuhide Tony Lee

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EDUCATION

University of Michigan — Ann Arbor, MI
Bachelor of Science in Computer Science — *Expected Graduation Date:* **May, 2025**
Courses: Computer Vision, Data Structure and Algorithms, Database Systems, Computer Organization, Artificial Intelligent, Operating Systems, Software Engineering, Web Systems

TECHNICAL SKILLS

Programming Languages: Python, C/C++, JavaScript, Typescript, Java, R, PHP, Matlab
Frameworks and Tools: React/React Native, Node.js, Flask, SQL, MongoDB, Supabase, Postman, Git, Redis
Languages: Mandarin Chinese (Native), Korean (Native), Japanese (Fluent), English (Fluent)

EXPERIENCE

F5 Inc — July 2024 – Sep 2024
Software Engineering Intern — *San Jose, CA*
- Designed and implemented a global session awareness architecture for **BIG-IP Next Access**, enabling secure communication and data sharing between different servers using **Redis**
- Developed the **DSSM proxy service** to handle session creation, lookup, and deletion across multiple servers, improving the efficiency of session management
- Conducted **end-to-end testing** of the DSSM proxy in standalone and multi-instance environments using **pytest**

University of Michigan School of Public Health — May 2024 – Dec 2024
Technology Research Assistant — *Ann Arbor, MI*
- Worked with 6 team members to create an a full stack website with a real-time interactive air quality map to deliver more transparent air quality data to citizens of Southeast Michigan using **Typescript** and **Flask**
- Developed a proprietary **REST-API** to calculate standardized air quality indices using data, collected from 50+ EPA and private sensors, involving **mySQL**, and **ExpressJS**
- Visualized and interpreted air data and wind rose diagrams using the **pandas** and **numpy** library in **Python**

Michigan Institute for Data Science — Apr 2024 – Present
Web Developer — *Ann Arbor, MI*
- Performed regular updates, data entry, and maintained the MIDAS website's front-end using **WordPress**
- Made customization to the back-end infrastructure using **PHP** to improved site load time performance by 25%
- Developed Python scripts to automate web scraping of faculty metadata to accelerate the data collection process

Bubble - Learn Science! — Aug 2023 – Dec 2024
Software Engineer — *Ann Arbor, MI*
- Designed and developed a web application that aids students with lower resource backgrounds to comprehending scientific research papers through interactive learning experiences
- Engineered the interactive front-end UI and quiz modules using **React** and **Typescript**, and utilized **supabase** for user authentication and databases

Develop for Good — May 2024 – Aug 2024
Product Manager — *Remote*
- Led the development of the Concordia app, a mobile application for 200+ global volunteers to streamline support efforts, impacting 2.8 million people in the Dominican Republic.
- Managed team of **7**, **orchestrating weekly meetings** to address development agendas and ensure team alignment, communicating with client about progress updates, feedback, and negotiate project requirements
- Contributed and guided to both frontend and backend development using **React Native** and **JavaScript**, implementing interactive interface, user authentication, and **Firebase** database connectivity

PROJECTS

Search Engine | *Python, HTML, Javascript* — Nov 2024 - Dec 2024
- Designed and implemented a scalable search engine using **MapReduce** for parallel data processing, incorporating **tf-idf** and **PageRank** algorithms to optimize information retrieval and link analysis.
- Developed an Index server with a **REST API** to return search results in **JSON** format and a Search server with a dynamic user interface.