Hsu-Huai (Aaron) Tsai

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EDUCATION

University of Illinois, Urbana-Champaign — **Champaign, Illinois**
MS in Computer Science — *Aug. 2024 — Present*
- GPA: 3.9/4.0

National Taiwan University — **Taiwan**
BS in Computer Science — *Sept. 2019 — Dec. 2023*
- GPA: 3.93/4.00

SKILLS

Programming Languages: C++, JavaScript, Python, TypeScript, Java

Frontend Development: HTML/CSS, React.js, Angular, SASS, RxJS

Backend Development: Express.js, FastAPI, Flask, Django, SpringBoot, Automated Tests

Data Management: MongoDB, SQL, Redis, Kafka

DevOps: GitHub Actions, Google Cloud, CI/CD, Docker, Kubernetes, Grafana, Prometheus, Linux, Unix, DNS

WORK EXPERIENCES

Waymo — **Mountain View, CA**
Software Engineering Intern (Full-Stack) — *May 2025 — Present*
- Built a fully automated C++ service that pulls citation documents from Google Drive, auto-parses them with Gemini AI, and logs them into the system—saving 15+ hours/week.
- Drove critical C++ backend refactoring tasks in collaboration with full-time engineers, enhancing code structure and maintainability for scalable growth.
- Implemented unit tests for 8+ frontend modules, boosting coverage and improving stability.

Binance — **Taiwan**
Software Engineering Intern (Backend) — *Oct. 2023 — Feb. 2024*
- Achieved a 70% performance improvement in essential APIs by implementing asynchronous calls.
- Optimized Dockerfile for vital internal services, reducing build time by over 40%.

LINE — **Taiwan**
Software Engineering Intern (Full-Stack) — *July 2022 — June 2023*
- Independently migrated a frequently used full-stack module using React.js and Java-SpringBoot.
- Enhanced internal Content Management System (CMS) frontend performance by over 100%.
- Developed a Python Slack Bot that streamlines the workflow, reducing daily routines by over 50%.
- Integrated auto-reminders for unresolved alerts into the Slack Bot, cutting resolution time by 40%.

PROJECTS

VibeNow | Angular, TypeScript, Node.js, WebSocket — *Dec. 2024*
A full-stack Angular project with WebSocket for anonymous chat conversations.
- Established a user-friendly website for effortless anonymous conversations.
- Integrated Responsive Web Design (RWD) to ensure seamless mobile device compatibility.
- Managed user requests and established rooms for matched users using WebSocket.
- GitHub Link: https://github.com/tsai8890/VibeNow.

Online Forum System | React.js, Express.js, GraphQL, MongoDB — *Dec. 2022*
A full-stack final project that earned A+ in NTU's EE3035: Web Programming course.
- Led the entire full-stack project, managing versions with git.
- Designed the website architecture and developed the Minimum-Viable-Product (MVP).
- Independently delivered the presentation through a pre-recorded video.
- GitHub Link: https://github.com/tsai8890/Online-Forum-System.