Yu Tsung (Eric) Kuo

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EDUCATION

Carnegie Mellon University   Mountain View, CA
Master of Science in Software Engineering   Sep 2023 - Dec 2024
- Relevant coursework: Foundation of Software Engineering, Software Testing and Verification

National Cheng Kung University   Tainan, Taiwan
Bachelor of Science in Computer Science and Information Engineering; GPA 3.83/4.3   Sep 2018 - June 2022

SKILLS

Programming Languages: TypeScript, JavaScript, Python, C/C++, Java, PHP, C#, Bash, SQL
Web Development: React.js, Vue.js, Express.js, Flask, Next.js, MongoDB, MySQL, Azure, AWS, Docker

WORK EXPERIENCE

Your Knowledge   Remote
Software Engineer   Dec. 2022 - Present
- Developed a custom WordPress theme using **PHP** and **TailwindCSS** for an online course website and deployed with the **Apache HTTP Server** on **Microsoft Azure**, featuring an no-code Website Editor for non-developers
- Decoupled the monolithic PHP codebase to **cloud-hosted microservices** using **LAMP stack** and **Restful APIs**
- Refactored the frontend using **Next.js** and **Redux**, leading to a 25% improvement in site loading speeds and a seamless UX
- Utilized a **GraphQL** layer to allow frontend interactions with **MySQL** database, reducing 50% data over-fetching
- Constructed a CI/CD workflow with **Docker** and **GitHub Action**, resulting in an 80% reduction in deployment time
- Integrated the **ECPAY API** for payment, logistic, and invoice services; adopted **Google Authentication** for user login

Nightingale AI.   Tainan, Taiwan
Software Engineer   July 2020 - Oct. 2022
- Developed a digital verification service using **React.js**, **FastAPI**, and **PostgresSQL** to digitize paper documents and expedite the application process, benefiting more than 100k students across 60+ universities in Taiwan annually
- Collaborated with designers to establish a reusable design system using **Chakra UI** and **Styled Components** for visualizing medical data, leading to a 30% increase in development speed and supported 100+ healthcare professionals during COVID-19
- Implemented **push notifications** feature on Smart Home App using **service workers**, enabling instant energy-saving alerts and resulting in a 20% reduction in energy consumption in collaboration with Tokyo Electric Power Company Holdings, Inc.
- Enhanced code quality by utilizing **ESLint**, **Prettier**, **Husky** and **migrating the JavaScript codebase to TypeScript**

AInimal   Tainan, Taiwan
Software Engineer   Oct. 2019 - Nov. 2022
- Designed and implemented a **graph convolution network-based recommendation system** for a dating app, achieving a significant 70% accuracy in recall score through meticulous cross-validation
- Constructed a data pipeline using **Numpy** and **Pandas**, including text and sentiment analysis to enhance data quality
- Built an analytical dashboard with **Apache ECharts** and **Matplotlib**, enabling the team to make data-driven decisions

PROJECTS

Emergency Social Network   July 2023 - present
- Collaborated with a team of 5 using **Scrum** and **Kanban** methodologies to develop a real-time chatting app
- Led the development of **RESTful APIs** using **Express.js**, and implemented real-time connections using **WebSockets**
- Applied ES6 **OOP** features, with the **MVC pattern** and **SOLID principles** to design and build a maintainable system
- Incorporated **TypeORM** with **MongoDB**, ensuring type-safe DB interactions and streamlined data management
- Conducted unit testing with **Jest**, applying dependency injection with **SQLite** to prevent effects on the production database
- Applied the **Block Element Modifier (BEM)** methodology in frontend development to ensure a **modular CSS** approach

Shopping Mall Navigator (Meichu Hackathon)   Oct 2021 - Oct 2021
- Built a customer-centric system aimed at recommending stores of interest, elevating the overall shopping experience
- Integrated LINE BEACON technology to detect customer entry, initiating an immediate in-store guide via a chatbot
- Designed a graphical dashboard interface for store owners, facilitating chatbot design and marketing data monitoring