# Yu-Tsung Kuo

Santa Clara, CA

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## EDUCATION

**Carnegie Mellon University**  Mountain View, CA
*Master of Science in Software Engineering*  Sep 2023 - Dec 2024

**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:** Next.js, Vue.js, Express.js, Flask, MongoDB, MySQL, Azure, AWS, Docker, Github Actions, JUnit

**Machine Learning:** PyTorch, Keras, Scikit-learn, TensorFlow, OpenCV, Recommendation System, GNN

## WORK EXPERIENCE

**Your Knowledge (start-up)**  Remote
*Software Engineer* | WordPress · Next.js · Azure · Devops  Dec 2022 - Present

- Developed a custom WordPress theme using PHP and TailwindCSS for an online course website, featuring an intuitive Theme Editor empowering non-developers to personalize the website's content
- Utilized GraphQL for precise data-fetching, resulting in a 50% reduction in backend data over-fetching
- Transformed WordPress to a headless CMS architecture by decoupling front-end and back-end for flexibility and scalability
- Integrated Next.js for the frontend, resulting in a 25% improvement in site loading speeds and a more seamless user experience
- Introduced Redux for centralized state management and data caching feature, achieving 40% reduction in data fetching
- Constructed a CI/CD workflow with Docker and GitHub Action, resulting in a 80% reduction in deployment time

**Nightingale AI.**  Tainan, Taiwan
*Software Engineer* | React.js · Chakra-UI · Figma  July 2020 - Oct 2022

- Handled frontend development single-handedly for the Digital Diploma project, adopted by 60 universities in Taiwan
- Built the NCKU Digital Transcript Application / Verification System from the ground up, enhancing document application efficiency by moving the entire process online, benefiting over 2000 graduates annually
- Collaborated closely with backend developers to construct statistical dashboards for visualizing medical data, delivering valuable tools for over 100 healthcare professionals during an epidemic
- Implemented push notifications feature on Smart Home App via service workers, enabling instant energy-saving alerts and resulting in a 20% reduction in energy consumption in collaboration with Tokyo Electric Power Company
- Coordinated with designers to establish a reusable design system powered by Chakra UI, leveraging its modular components and theming capabilities, resulting in 30% acceleration in team development efficiency over 10 projects
- Improved code quality by utilizing ESLint and migrating the JavaScript codebase to TypeScript

**AInimal**  Tainan, Taiwan
*Software Engineer* | PyTorch · Recommendation System · React.js  Oct 2019 - June 2022

- Devised and created a graph convolution network-based recommendation system for a dating app's matching algorithm, incorporating user profiles analysis and chat status evaluation to achieve 60% accuracy in recall score
- Optimized the recommendation system by utilizing the Linguistic Inquiry and Word Count, boosting accuracy to 75%
- Engineered an analytical tool to offer insights into application data, enabling the product team to make data-driven decisions

## PROJECTS

**Real-time Messaging App**  [ Express.js, Socket.io ] [ website ]

- Developed a chatting app using object-oriented programming in JavaScript, emphasizing encapsulation and inheritance
- Applied the Block Element Modifier (BEM) methodology in frontend development, ensuring a modular CSS approach
- Incorporated Prisma (ORM) with the SQLite database, ensuring type-safe DB interactions and streamlined data management

**Shopping Mall Navigator (Meichu Hackathon)**  [ Chatbot, React.js, FastAPI ] [ code, website ]

- 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