

# Yu Tsung (Eric) Kuo

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## EDUCATION

### Carnegie Mellon University

*Master of Science in Software Engineering*

• Relevant coursework: Foundation of Software Engineering, Software Testing and Verification

Mountain View, CA

Sep 2023 - Dec 2024

### National Cheng Kung University

*Bachelor of Science in Computer Science and Information Engineering; GPA 3.83/4.3*

Tainan, Taiwan

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

## WORK EXPERIENCE

### Your Knowledge

Remote

*Software Engineer* | Next.js, Azure, Devops, PHP, GraphQL

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 over-fetched data from the backend service
- 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
- Implemented Redux for centralized state management and data caching feature, achieving 40% reduction in data fetching
- Constructed a CI/CD workflow using Docker and GitHub Action, resulting in an 80% reduction in deployment time

### Nightingale AI.

Tainan, Taiwan

*Software Engineer* | React.js, Chakra-UI, TypeScript

July 2020 - Oct. 2022

- Handled the frontend development single-handedly for the [Digital Diploma project](#), adopted by 60 universities in Taiwan
- Developed 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
- Built statistical dashboards for visualizing medical data, assisting over 100 healthcare professionals during an epidemic
- 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.

### AINimal

Tainan, Taiwan

*Software Engineer* | PyTorch, Recommendation System, React.js

Oct. 2019 - Nov. 2022

- Designed and implemented 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
- Enhanced the recommendation system using 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

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

**Data Station (Tainan Innovation Datathon)** [Flask, PostgreSQL, React.js, Apache ECharts] Sep 2022 - Sep 2022

- Analyzed and integrated data from three distinct enterprise systems, including the smart meters, accommodation sales, and power backup capacity to empower companies to achieve sustainable operations and ESG responsibility
- Developed a backend service using Flask and PostgreSQL to reduce reserve capacity demand by 40% through demand response and enable accommodation providers to offer corresponding discounts to consumers
- Created a visual data analytics platform with Apache ECharts, earning future sustainability award among 20 teams

**Ninjutsu Mudra Recognition** [PyTorch, OpenCV, PyQt] [[slides](#)]

Sep 2021 - Jan 2022

- Led a team of 10 to develop the Ninjutsu Mudra Recognition Project with VGG-16, achieving an 85% accuracy
- Enhanced efficiency with EfficientNet to enable real-time recognition capabilities, and integrate the model into desktop application using OpenCV and PyQt