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

- Relevant coursework: Social Network and Recommendation System, Machine Learning and Bioinformatics

Skills

Python (Numpy, Pandas, Matplotlib, PyTorch, TensorFlow, Scikit-learn, Flask), SQL (MySQL, SQLite, MongoDB, PostgreSQL), JavaScript (React.js, Next.js, Vue.js, Express.js), TypeScript, Git (GitHub, GitLab)

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
- 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