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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: React.js, Vue.js, Express.js, Flask, Next.js, MongoDB, MySQL, Azure, AWS, Docker

WORK EXPERIENCE

Your Knowledge

Software Engineer

Remote

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 with the **MySQL** database, resulting in a 50% reduction in backend 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.

Software Engineer

Tainan, Taiwan

July 2020 - Oct. 2022

- Developed a digital verification service using **React.js**, **FastAPI**, and **PostgreSQL** 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** and **migrating the JavaScript codebase to TypeScript**

AINimal

Software Engineer

Tainan, Taiwan

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
- Engineered an analytical dashboard with **Apache ECharts** and **Matplotlib**, enabling the team to make data-driven decisions

PROJECTS

Emergency Social Network [Express.js, Socket.io, MySQL, Jest] [[website](#)]

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, while also implementing real-time connections using WebSockets
- Applied ES6 OOP features, with the MVC pattern and SOLID principles to design and implement a maintainable system
- Incorporated Prisma with the MySQL database, 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) [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