Tzu–Ming Lu

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Education

Stevens Institute of Technology **Feb 2023 – Jun 2024**
Master of Science in Computer Science Hoboken, NJ

National Chiao Tung University **Sep 2018 – Jun 2020**
Master of Science in Industrial Engineering and Management Hsinchu, Taiwan

Yuan Ze University **Sep 2012 – Jun 2016**
Bachelor of Science in Industrial Engineering and Management Taoyuan, Taiwan

Technical Skills

Languages: JavaScript, TypeScript, JAVA, Python, HTML/CSS, SQL, C#, R
Frameworks: React, Express, Node.js, Tailwind CSS, Bootstrap, Next.js
Developer Tools: Git, Docker, Kubernetes, PostgreSQL, MongoDB, Handlebars, AWS, Heroku

Selected Projects

Ticketing-System | *TypeScript, Kubernetes, Skaffold, Docker, Next.js, MongoDB* **Sep 2023 – Dec 2023**

- Streamlined operations by spearheading the deployment of a scalable **microservices** platform orchestrated in Kubernetes and Docker
- Addressed **concurrency** problems in the distributed system by providing versioning events for concurrency control
- Integrated proficiently **NATS** Streaming Server as a highly efficient event bus to streamline data communication among diverse services
- Spearheaded the automation of product deployments by constructing a highly efficient **CI/CD** pipeline utilizing GitHub Actions, expecting to result in a 30% decrease in deployment errors
- Implemented a Server-Side Rendered React application using Next.js and successfully facilitated cross-namespace service communication, anticipating about a 20% improvement in page load times and a 10% reduction in latency

Pro Shop E–Commerce | *Python, Django, React JavaScript, PostgreSQL, Heroku* **Jul 2023 – Aug 2023**

- Developed a full stack E-commerce website with a shopping cart application using **Django** and **React**
- Deployed a website on Heroku, leveraging PostgreSQL database on **AWS RDS** for real-time marketing strategy analytics; achieved 50% faster data retrieval times
- Employed payment functionality by integrating with **PayPal API** and recorded orders in the profile
- Authenticated user by **JSON Web Token** in the backend and React in frontend authentication
- Implemented **Redux** to manage global states and actions in React components

Better Interview Book | *JavaScript, HTML/CSS, Express, MongoDB, Bootstrap, AJAX* **Feb 2023 – May 2023**

- Teamed with three members to devise and execute an innovative platform utilizing agile methodologies to facilitate candidate-employer connections
- Developed **ER diagrams** to architect the MongoDB database structure and implemented session-based authentication.
- Constructed a real-time chat box between different candidates by implementing **Socket.IO** and a simultaneously rendered web page using **AJAX**

Work Experience

***Industrial Engineer,* Compal Electronics, Inc.,** Taoyuan, Taiwan **Sept 2020 – Oct 2021**

- Strategically designed a plant layout to optimize machine placement, boosting production capacity and leading to an impressive 25% increase in worker performance.

Awards and Honors

- Stevens Institute of Technology Graduate Scholarship **Feb 2023**
- Advanced Data Analysis with R: Term Project – 3rd place out of 24 teams **Feb 2020**
- Chunghwa Post Co., Ltd.: Big Data Competition – advanced to quarterfinal **May2019**