

Yu-Chia Chen

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EDUCATION

Rice University

Master of Computer Science

- GPA: 3.96/4.0

Houston, Texas

08/2022 – 12/2023

National Taiwan University

Bachelor of Arts in Economics

Taipei, Taiwan

09/2017 – 06/2021

Relevant Courses: Parallel Computing, Secure and Cloud Computing, Web Development and Design, Introduction to Computer Networks, Data Structure and Algorithms, Operating System, Computer Systems Architecture, Discrete Mathematics

WORK EXPERIENCE

Paycom

Software Development Intern

Dallas, Texas

05/2023 – 08/2023

- Architected a full-stack live chat application to service 37,000+ clients using React, Node.js, and TypeScript
- Designed a robust and scalable database schema with MySQL, handling over 10,000 daily messages with about 100ms response time
- Led and coordinated a team of 8 interns through the design, development, and presentation of the project

Microsoft

Software Engineer Intern

Taipei, Taiwan

07/2020 – 06/2021

- Built a deep learning-based fan anomaly detection model with 99% accuracy in the production stage for a multi-national manufacturing company of 80,000+ employees
- Engineered cloud solutions to analyze 300TB+ monthly IoT data for business analytics with distributed systems (Azure Synapse & Azure Databricks) for an optronics company of 38,000+ employees
- Coordinated and Lectured 10+ Azure Machine Learning workshops to solve undefined problems with AI for 150+ engineers

eLand Information

Software Engineer Intern

Taipei, Taiwan

03/2020 – 06/2020

- Developed a machine learning model for precision marketing with over 15% increase in accuracy of website classification tasks
- Collaborated with 10+ engineers to design pipelines to validate the accuracy of newly released AI models used for semantic analysis

SELECTED PROJECTS

Chatify | Go, React.js, TypeScript, Tailwind CSS, MongoDB

04/2023 – 05/2023

Side Project

- Utilized Go's concurrent programming capabilities with Goroutines to seamlessly handle more than 1 million multi-client connections
- Implemented secure data transmission using encryption algorithms in Go, ensuring end-to-end data protection and privacy

Intra-Domain Routing Protocols | C, C++

01/2023 – 04/2023

Course Project: Introduction to Computer Networks

- Architected two routing protocols (distance vector and link-state) in networking, ensuring efficient and reliable communication
- Conducted rigorous testing and validation of routing protocols, resolving potential issues to ensure uninterrupted network connectivity

RiceBook | Node.js, Express.js, React.js, Tailwind CSS, MongoDB, OAuth 2.0, Heroku, Cloudinary

08/2022 – 12/2022

Course Project: Web Development and Design

- Implemented a social media web app using React.js and Node.js for frontend and backend development with over 85% test coverage
- Devised third-party login services with Google OAuth 2.0 and hosted a web app on Surge

2.5D Matrix Multiplication | C++, OpenMPI

11/2022 – 12/2022

Course Project: Parallel Computing

- Formulated 2D, 2.5D, and 3D matrix multiplication algorithms in C++ and OpenMPI
- Reduced the execution time of matrix multiplication by 93% with 2.5D matrix multiplication algorithms compared to the serial version

SKILLS

Programming Language: Python, JavaScript, C, C++, Go, HTML, CSS, Tailwind CSS, TypeScript, OpenMP, OpenMPI, CUDA

Other Technical Skills: Azure, AWS, Git, Linux, MySQL, PostgreSQL, MongoDB, Docker, Kubernetes, Spark, Hadoop, Fish Shell