

# Yu-Chia Chen

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## EDUCATION

### Rice University

Master of Computer Science

- GPA: 3.96/4.0

*Houston, Texas*

08/2022 – Present

### 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 – Present

- Developed a full-stack live chat application utilizing the MERN stack and TypeScript with over 90% test coverage
- Designed a robust and scalable database schema with MongoDB, handling over 10,000 daily messages with a sub-second response time

### 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 (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 (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 a 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-c;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 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