Yu-Chia Chen

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EDUCATION

Rice University *Houston, Texas*
Master of Computer Science 08/2022 – Present
- GPA: 3.96/4.0

National Taiwan University *Taipei, Taiwan*
Bachelor of Arts in Economics 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

Microsoft Corporation *Taipei, Taiwan*
Software Engineer Intern 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 Corporation *Taipei, Taiwan*
Software Engineer Intern 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, specifically Goroutines, to seamlessly handle 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 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

Data Structure Visualizer | Node.js, React.js, MongoDB, Azure Cloud Services 03/2021 – 06/2021
Course Project: Web Programming
- Created visualization tools to help students to learn data structure efficiently by visualizing 8 data structures and 10 sorting algorithms
- Accelerated website released rate by 10 times and boosted code quality with CI/CD pipelines on Azure

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