

# Yu-Chia Chen

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## EDUCATION

### Rice University

Master of Computer Science

- GPA: 4.0/4.0

*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, High-Performance Architecture, Data Structure and Algorithms, Operating System, Computer Systems Architecture, Discrete Mathematics

## WORK EXPERIENCE

### Microsoft Corporation

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 Corporation

Data Science 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

## RESEARCH EXPERIENCE & PUBLICATIONS

### National Ilan University - Multimedia & Intelligent Technical Laboratory

Research Assistant (Advisor: Prof. [Chih-Hsien Hsia](#))

*Ilan, Taiwan*

12/2020 – 07/2022

**Yu-Chia Chen**, Sin-Ye Jhong, and Chih-Hsien Hsia, “[RSU-Based Unknown Object Detection in Adverse Weather Conditions for Smart IoT](#),” ACM Transactions on Management Information Systems (TMIS), 2021.

**Yu-Chia Chen**, Zih-Ching Chen, and Chih-Hsien Hsia, “[Music Mood Classification System for Streaming Platform Analysis via Deep Learning-Based Feature Extraction](#),” in Proceedings of the IEEE International Conference on Consumer Electronics - Taiwan (ICCE-TW), 2021.

## SELECTED PROJECTS

[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 (Django, Flask, Pandas, Scikit-learn, PyTorch), JavaScript (Node.js, React.js, Next.js, jQuery), C, C++, HTML, CSS, Tailwind CSS, Java, TypeScript, R, OpenMP, OpenMPI, CUDA

**Other Technical Skills:** Azure, AWS, Git, Linux, SQL Databases(MySQL, MSSQL), MongoDB, Spark, Hadoop, Fish Shell