

Yu-Chia Chen

2410 Shakespeare St Apt 4433A, Houston, TX | 346-431-5326 | yc158@rice.edu | yuchiachen.vercel.app | github.com/yuchia0221 | in/yu-chia-chen

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, Introduction to Computer Networks, 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