

Yu-Chia Chen

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EDUCATION

Rice University

Master of Computer Science with specialization in Systems & Security

Houston, Texas

08/2022 – Present

National Taiwan University

Bachelor of Arts in Economics

Taipei, Taiwan

09/2017 – 06/2021

- CS GPA: 3.94/4.3 (3.82/4.0)

Relevant Courses: Parallel Computing, Web Development and Design, Computer Systems Architecture, Data Structure and Algorithms, Operating System, Discrete Mathematics, Computer Programming Language, Machine Learning Foundations & Techniques

PRACTICAL 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 – 07/2021

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. (In press)

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

Data Structure Visualizer | Node.js, React.js, MongoDB, Azure Cloud Services

03/2021 – 06/2021

Final 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

Ecommerce Website | Node.js, Nginx, Amazon Web Services, GitHub Actions

08/2020 – 03/2021

Side Project

- Implemented a full-stack e-commerce website with the shopping cart, administrative management systems, and subscriptions services
- Devised the dataflow and cloud solutions on the AWS Cloud Platform to enhance flexibility and fault tolerance ability

Music Recommendation System | Python (Scikit-learn, Xgboost, Flask)

01/2020 – 03/2020

Final Project: Capstone Project for Data Science and Social Inquiry

- Improved classification accuracy to 0.8 (classical statistic method: 0.6) with audio feature extraction and machine learning models
- Designed a web scrawling system to speed up retrieving songs metadata with multithreading by 100 times

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

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