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 *Houston, Texas*
Master of Computer Science 08/2022 – Present

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

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*
Data Science 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

RESEARCH EXPERIENCE & PUBLICATIONS

National Ilan University - Multimedia & Intelligent Technical Laboratory *Ilan, Taiwan*
Research Assistant (Advisor: Prof. Chih-Hsien Hsia) 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. (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