Chun (Gene) Yu

28 Harston Walk, London | gene.yu.tw@gmail.com | 07904 548 316 | linkedin.com/in/gene-yu-tw

Education

Imperial College London, UK Sep. 2023 – Sep. 2024
MSc in Computing, with Distinction
- Coursework: Software Systems Engineering, Machine Learning, Computational Finance, Distributed Systems
- Master Thesis: "Robust Time Series Causal Discovery for Agent-Based Model Validation"

National Tsing Hua University, Taiwan Sep. 2018 – Jun. 2022
BS in Interdisciplinary Program of Engineering, (Top 4%, Dean's List 2x)
- Specialised in Electrical Engineering and Power Mechanical Engineering with a focus on Electrical Control
- Awards: 2nd Place, College of EECS Project Competition

Experience

Summer Intern, Academia Sinica – Taipei, Taiwan Jul. 2022 – Aug. 2022
Natural Language Processing and Sentiment Analysis Lab
- Collaborated with a research team on an AI-Automated Training System for Figure Skating, concentrating on improving temporal video alignment by incorporating posture features

Research Intern, National Tsing Hua University – Hsinchu, Taiwan Jan. 2021 – Jan. 2022
Laboratory for Reliable Computing
- Led the design and execution of a comprehensive motion analysis system utilizing Inertial Measurement Units (IMUs) for instep kicking motions, demonstrating high accuracy and low error in position and velocity
- Developed a motion analysis system based on a 6-axis IMU to reconstruct the trajectory of a football kick, achieving low RMS errors in velocity and position analysis
- Authored the peer-reviewed publication: **Yu, C.**; Huang, T. Y.; Ma, H. P. Motion Analysis of Football Kick Based on an IMU Sensor. Sensors 2022, 22, 6244.

Projects

Robust Time Series Causal Discovery for Agent-Based Model Validation May 2024 – Sep. 2024
- Developed a Robust Cross-Validation (RCV) framework to improve causal discovery accuracy in Agent-Based Model (ABM) validation, addressing noise and complexity challenges
- Introduced RCV-VarLiNGAM and RCV-PCMCI extensions to enhance causal structure learning, achieving more reliable results with high-dimensional, time-dependent data
- Validated approach robustness and reliability across synthetic and fMRI datasets

FoodHub Web Application (Software System Engineering) Feb. 2023 – Mar. 2023
- Architected microservices using Azure and Supabase for scalability and database solutions
- Streamlined CI/CD pipelines to automate deployment processes across environments
- Developed Food Finder feature with secure user onboarding and recipe discovery APIs

Technical Skills

Programming: Python, C++, Java, JavaScript/HTML/CSS, React, Git, Verilog HDL
Cloud & DevOps: AWS (EC2, S3, Lambda), Azure, CI/CD, Docker
Development Tools & Analysis: MATLAB, Data Analysis, Project Management
Professional Development: AWS DevOps Specialization, Meta Front-End Developer Certificate (Coursera)

Extracurricular Activities

Exchange Student, Tel Aviv University – Israel Feb. 2022 – Jun. 2022
- Conceptualised a pedestrian safety route app at 2022 Ignites International Hackathon

Tanzania Volunteer Team, Curriculum Planning Section – Taiwan Nov. 2019 – Nov. 2020
- Organized software teaching lessons for kids and raised 120+ second-hand computers from businesses.