# Yu-Han Sun

# Taipei, Hsinchu

# Education

# National Yang Ming Chiao Tung University

Sep. 2020 - Jun. 2024

B.E. Industrial Engineering and Management

Hsinchu, Taiwan

GPA: 4.17/4.3; Ranking: 2/72; the Dean's List Award

Relevant Coursework: Data Structures, Algorithm, Database System, Operating System, Artificial Intelligence, Network Programming, Statistics, Operation Research, Genetic Algorithm and Applications, Simulation

# **Projects**

#### Online MUD Map Game with Integrated Chat $\mid C++(SFML), MySQL$

Dec. 2023 - Jan. 2024

- Utilized socket programming for TCP-based client-server communication, using Simple and Fast Multimedia Library (SFML) for GUI and game development with over 2k lines code.
- Implemented a real-time, multiplayer game environment, featuring live tracking of player locations and chatting system for player interaction.
- Utilized MySQL for backend data storage, managing login credentials and maintaining a ranking record for players.

### Blockchain Application for Supply Chain Simulation | React, Express, MySQL

Feb. 2023 - Mar. 2024

- Developed a React interface for interaction with blockchain, integrating an Arduino RFID module to automate state transitions.
- Deployed a simulated blockchain network using Truffle and Ganache, and utilized Web3.js to interact with smart contract.
- Implemented a login system with Express, establishing connection to MySQL for storing and verifying user credentials.

# Elder Care Service Locator Website | JavaScript, PHP, MySQL, Python

May. 2023 - Jun. 2023

- Developed a website integrating JavaScript, PHP with Google Maps API to display elder care facilities on a map.
- Designed and implemented a database architecture utilizing SQL, ensuring data management and accessibility.
- Conducted data collection on elder care facilities using Beautiful Soup, Selenium, and government open data.

# Simulation and Solution of Job Shop Scheduling Problem (JSSP) | Python, Flexsim May. 2023 - Jun. 2023

- Implemented Genetic Algorithm from metaheuristics and optimized hyperparameters using Bayesian Optimization.
- Automated the exportation of algorithm outputs into Flexsim-compatible formats using Python scripting.
- Employed Flexsim to simulate JSSP outcomes and visualized the operation of each machine to facilitate analysis and presentation of results.

# **Technical Skills**

Languages: C/C++, Python, JavaScript, SQL, Solidity

Frameworks/Libraries: React, Express, Remix, Simple and Fast Multimedia Library (SFML), Beautiful Soup, Selenium Development Tools: Git, Node.js, Visual Studio Code

#### Experience

#### Syntec Technology

Jun 2023 - Nov 2023

Industrial Engineering Intern

 $Hsinchu,\ Taiwan$ 

- Contributed to over 7 cross-departmental projects, focusing on process optimization and automation.
- Automated departmental tasks using Robotic Process Automation, achieving a 7% reduction in routine work hours.
- Developed a VBA-based tool to automate the generation of monthly reports, enhancing efficiency and accuracy.

# Leadership

# NYCU Student Career Institute - Open House

Oct 2020 - Present

Coordinator

Hsinchu, Taiwan

- Coordinated 6 career fairs for 4 years, each attracting over 10k students, and demonstrated digital transformation by organizing and transitioning career fair event to online platform.
- Led 3 departments with a total of 40 members, serving as a pivotal liaison communicating with the NYCU Career Development Center.
- Organized annual innovative events to assist students in exploring career paths and fostering connections with industry-leading companies.

# Atona Case Compitition (ATCC) Final Rounds in Preliminary

Mar. 2022 - Apr. 2022

Team member of "Gong Mei Swag"

Taipei, Taiwan

- Spearheaded a project for the Teacher Chang Foundation, enhancing public awareness of youth mental health, ranking top 20 nationally in ATCC.
- Developed a series of podcasts and created Instagram effects, achieving over 7k uses.