MING-CHIEH, HU

— (+31) 6 4755 4399 — **github.com/MCHU-1999** — **Behance** — **Issuu** —

Education

Delft University of Technology (TU Delft) — Delft, Netherlands
MSc Geomatics — Sep 2024 — now

National Yang Ming Chiao Tung University (NYCU) — Hsinchu, Taiwan
M.Arch I program in Institute of Architecture (withdrew) — Sep 2021 — Jun 2022

National Yang Ming Chiao Tung University (NYCU) — Hsinchu, Taiwan
B.S. in Electronics Engineering — Sep 2017 — Jun 2021
Innovative Technology and Art Program — Sep 2019 — Jun 2021

Academic Projects

Solar Decathlon Europe 21/22 — Wuppertal, Germany
Student Electrical Engineer, team TDIS — Sep 2020 – Jul 2022

- Designed and implemented the power plan for the two story house demonstration unit, integrating photovoltaic panels, inverters, batteries, and home appliances. Using parametric modeling techniques such as Grasshopper 3D.
- Collaborated with numerous mechanical manufacturers and a group of professional electricians on the site to complete the integration of electrical work with the construction of the house. Resulted in superior rankings in energy performance and house functionality.
- Led the transportation research of Taipei and innovative design for urban mobility. Engaged in in-depth discussions with the juries, articulating our design and strategies.
- Awarded 1^{st} Prize for architecture, 3^{rd} Prize for innovation among 18 international teams.

Artificial Intelligence and Multimedia Laboratory, NYCU — Hsinchu, Taiwan
Lab Member — Sep 2019 – Jun 2020

- Enhanced the voice conversion results of a Variational Auto Encoder by integrating MOSNet and subsequently yielded a new loss metric, resulting in a significant improvement in the ratings of the converted voice.
- Modified a neural network using the MFCC algorithm to incorporate a WORLD vocoder, making it able to perform back propagation.

Work Experience

TORIII Technology Corporation — Taipei, Taiwan
Project Manager / Full Stack Developer / UI Designer — Sep 2022 – Nov 2023

- Planned, designed, and developed a customer relationship management system that served thousands of users on LINE, Taiwan's most widely used social platform. Including features such as monthly charges, copy-trade automation, and a performance demonstration board, using Figma, Node.js, React, MongoDB, GCP, and LINE LIFF.
- Collaborated with Aiii, an AI marketing company, to develop an NFT membership management system and a centralized wallet that operates on both the Ethereum and Polygon chains within the LINE framework.
- Programmed and deployed the 'Wonderland' NFT series on Polygon chain, organized multiple airdrop events using Solidity, JavaScript, React, and Python, and collaborated with SETTV, a renowned television company in Taiwan.
- Developed a data visualization-based trading strategy optimization method with an concise user interface, which helps company's trading strategies make consistent profits month after month.
- Conducted an in-depth investigation into the performance of various deep learning models applied to cryptocurrency trading using PyTorch. Such as transformers, LSTM, and ResNet, and analyzed their effectiveness in optimizing trading strategies.
- Planned and coordinated a customized development of a ticketing platform, working with designers, front-end and back-end engineers in a project manager role.

Skills

- **Relevant Coursework:** Algorithms, Computer Organization, Data Structures, OOP, Intro to Machine Learning, Electronics Lab, Embedded System Lab, Calculus I-II, Differential Equations, Probability and Statistics, Linear Algebra, Computational Aesthetics, Design Computation and Human-Machine Interface, Sensing Technologies, Geographical Information Systems and Cartography, Positioning and Location Awareness, Geo Database Management Systems, Digital Terrain Modelling
- **Programming:** C, C++, JavaScript, Python, HTML, CSS, SQL
- **Frameworks:** LangChain, PyTorch, Node.js, Express, React, CI/CD, GCP, K8s, MongoDB, postgreSQL
- **Software:** QGIS, FME, Rhinoceros 3D, Grasshopper 3D, Photoshop, Illustrator, Indesign, Figma, Git
- **TOEFL:** 102/120 (R: 29, L: 28, S: 22, W: 23)