

# MING-CHIEH, HU

— m.hu-5@student.tudelft.nl — Personal website — Behance — Issuu —

## Education

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### Delft University of Technology (TU Delft)

MSc Geomatics

Delft, Netherlands

Sep 2024 — present

### National Yang Ming Chiao Tung University (NYCU)

M.Arch I program in Institute of Architecture (withdrew)

Hsinchu, Taiwan

Sep 2021 — Jun 2022

### National Yang Ming Chiao Tung University (NYCU)

B.S. in Electronics Engineering

Innovative Technology and Art Program

Hsinchu, Taiwan

Sep 2017 — Jun 2021

Sep 2019 — Jun 2021

## Academic Projects

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### Solar Decathlon Europe 21/22

*Student Electrical Engineer, team TDIS*

Wuppertal, Germany

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<sup>st</sup> Prize for architecture, 3<sup>rd</sup> Prize for innovation among 18 international teams.

### Artificial Intelligence and Multimedia Laboratory, NYCU

*Lab Member*

Hsinchu, Taiwan

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

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### TORIII Technology Corporation

*Project Manager / Full Stack Developer / UI Designer*

Taipei, Taiwan

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

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- **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)