# Yu Lun Hsu

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#### **EXPERIENCE**

### **NYCU ITSC System Development Team**

Full-stack Engineer, Architecture Designer

July. 2021 – Present

Golang, MySQL, Docker, Vue.js

- · Light-weight and microservice-like system architecture design for Institute of Public Health
- · Conduct stress test for optimizing API server; increased rate of request by 200%
- Introduce CI/CD pipeline and containerized service with gitOps to boost productivity by 50%
- Integrate AWS S3 into resource server and MySQL backup routine
- · Build backend api and database service in Golang, design UI by Figma, and implement frontend via Vue.js

### **Reinforcement Learning and Bandits Lab**

July. 2020 - Jan. 2022

Undergraduate Researcher

Python, RL, Algorithm

- Undergraduate research fellowship, Ministry of Science and Technology (Most), Taiwan
- Analysis on the overestimation over Distributional Deep Q Network (Implicit Quantile Network)

### College of Management, NYCU

Mar. 2020 - Jan. 2022

Python, Matlab

- Researcher, Teach Assistant
  - Time series prediction via variant of Lotka-Volterra model of energy consumption
  - · Automate whole research pipeline to enhance productivity
  - Build private web service for sharing executable programs over lab members

#### **AWARDS & CERTIFICATIONS**

#### **Academic Achievement Award**

Ranked TOP 1 in Department of Computer Science

## Undergraduate research fellowship, Ministry of Science and Technology

Senior project: On the Overestimation Bias of Distributional Reinforcement Learning

### **NI Certified LabVIEW Associate Developer**

LabVIEW developer certification

### **PROJECTS**

#### Detection of Ponzi Scheme in Smart Contract C

- Perform better preprocessing to improve f1-score up to 0.12 than this IEEE paper
- Implement a frontend UI to copy, paste and detect OPcode of smart contract

# Ablation of Implicit Quantile Network 🔀

- Find and evaluate the important factor in IQN.
- · Elaborate the reason why IQN is better than QR-DQN

#### Bitcoin Trader

Utilize reinforcement learning method (PPO) to automatically trade on Binance and gain 400% profit rate

# **EDUCATION**

### **Institute of Computer Science and Engineering**

National Yang Ming Chiao Tung University

Sep. 2022 – Master Degree

# **Department of Computer Science**

National Yang Ming Chiao Tung University

Sep. 2018 – June. 2022 Bachelor Degree

# **SKILLS**

Languages: Golang, Python, JavaScript (Vue.js, React.js), HTML/CSS, SQL (MySQL, SQLite)

Ability: Git, DevOps, ML, RL, DL