

Cheng-Yu Hsieh

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EDUCATION

M.S., Interdisciplinary Engineering Aug 2022 - May 2024
San Jose State University San Jose, CA

• **Relevant Courses:** Data Structures and Algorithms, Introduction to Programming (Java), Fundamentals of Management Information Systems (Python), Database Management Systems (SQL), Object-Oriented Design, Web Based Computing, Engineering Analysis, Systems Engineering

M.S., Financial Engineering Oct 2022 - May 2024
WorldQuant University Online

• **Relevant Courses:** Financial Markets, Financial Data, Financial Econometrics, Derivative Pricing, Stochastic Modeling, Computational Finance, Machine Learning in Finance, Portfolio Management, Risk Management

B.S., Opto-Electronics Information Science and Engineering Aug 2014 - Jun 2018
Sun Yat-sen University Guangzhou, China

• **Relevant Courses:** Visual Basic Programming, SPSS Decision Statistics and Predictive Analytics, Advanced Mathematics-1(I), Advanced Mathematics-1(II), Linear Algebra, Numerical Methods, Methods of Mathematical Physics, Signal and System

PROJECT EXPERIENCE

Technical Indicator for Cryptocurrency Trading May 2022 - Jul 2022
Taipei Blockchain Club Taipei, Taiwan

- Fetched the Bitcoin data, including the Future Open Interest Perpetual and the Market Capitalization, and stored it into two CSV files
- Developed an indicator called Offset Open Interest Perpetual through processing data in both CSV files
- Offset Open Interest Perpetual serve as a crypto market sentiment indicator; risk-return ratio is between 2 and 5, with a 3% maximum drawdown (MDD)

Build a Web3 APP with Solidity and React Mar 2022 - Apr 2022
Taipei Blockchain Club Taipei, Taiwan

- Compiled smart contracts(Solidity) locally and deployed to the Ethereum Rinkeby Testnet automatically
- Setup a React application; can connect Metamask wallet to it, and can interact with smart contracts

Speech Recognition Sep 2015 - Sep 2016
Sun Yat-sen University Guangzhou, China

- Reported articles on Machine Learning and Deep Learning, e.g., Recurrent Neural Networks(RNN), Convolutional Neural Network(CNN), Long Short Term Memory Network(LSTM), Deep Belief Network(DBN)
- Conducted research on Acoustic Model, Language Model, Hidden Markov Model and Mel-Frequency Cepstrum

EMPLOYMENT HISTORY

Quantitative Researcher of Cryptocurrency (Full-time) Jun 2019 - Aug 2019
Guangzhou Shining Midas Investment Management Co., Ltd. Remote

- Optimized backtest trading system, and developed Commodity Trading Advisor(CTA) Strategies for BTC, BCH, ETH, EOS

Exchange Management System Manager (Full-time) Nov 2018 - Feb 2019
Guangzhou Skywalker Network Technology Service Co., Ltd. Guangzhou, China

- Managed cold and hot wallets addresses in cryptocurrency exchange, and maintained automated quotations system

Co-founder (Full-time) Apr 2018 - Oct 2018
Guangzhou EvoBlock Technology Co., Ltd. Guangzhou, China

- Built quantitative trading interfaces, in Python, for Guangzhou Shining Midas Investment Management Co., Ltd., with APIs in Binance cryptocurrency exchange
- Deployed smart contracts automatically on Ethereum Rinkeby Testnet through using Infura APIs and Truffle framework(JavaScript) with mnemonic

RESEARCH EXPERIENCE

Smart Contracts Security Researcher

Mar 2022 - Apr 2022

Self-study

Taipei, Taiwan

- Researched on Ethernaut —a Web3/Solidity based wargame platform
- Implemented Solidity and Python programs to exploit smart contract vulnerabilities, such as stack underflow (SafeMath), difference between tx.origin and msg.sender, pseudorandomness, re-entrancy attack, delegatecall function, self-destruct function, fallback function

Blockchain Researcher

Sep 2017 - Jun 2018

Sun Yat-sen University

Guangzhou, China

- Researched on *Bitcoin: A Peer-to-Peer Electronic Cash System* and *ETHEREUM: A SECURE DECENTRALISED GENERALISED TRANSACTION LEDGER*.

VOLUNTEER EXPERIENCE

Consultant & Lecturer in Blockchain Club

Sep 2018 - Jan 2019

Sun Yat-sen University

Guangzhou, China

- Conducted principles of Bitcoin & Ethereum impacting over 40 students in Sun Yat-sen University.

CERTIFICATES

- National Chiao-Tung University's FinTech Program Certification
- Darencademy: Fundamental Project Management Certification(7 PDUs)
- Darencademy: The Product Manager's Guide Certification(6.5 PDUs)
- Coursera: Programming for Everybody Certification(Python)
- Coursera: Using Python to Access Web Data Certification(Web Crawler)

ACHIEVEMENTS

- Earned over \$250,000 in non-fungible token(NFT) market in half year Oct 2021 - May 2022
- Top 10 in Westartin FinTech Competition May 2019
- Finalist in China Innovation & Entrepreneurship Competition Aug 2018

PROFESSIONAL SKILLS

- Programming Languages Python, Java, Solidity(Smart Contract)
- Frameworks PyTorch, Truffle(Ethereum)
- Packages Pandas, SciPy, NumPy, Matplotlib, Seaborn, Scikit-Learn
- Platforms Linux, Google Cloud Platform
- Soft Skills Distribute Equity for Startups, Project Management, Business Model Design