

# Fu Hao Wei

fuhaowei8435@gmail.com • 412-933-9037 • <https://www.linkedin.com/in/fuhaowei/> • <https://github.com/fuhaowei>

## EDUCATION:

Carnegie Mellon University

Graduation Date: 2024 May

B.S. in Information Systems, B.S. in Computer Science, Minor in Human Computer Interaction

## WORK EXPERIENCE:

GovTech, Singapore

Software Engineering Intern (NDI)

June 2021 – August 2021

- Ideated, designed and implemented an Amazon Web Services Network Firewall architecture for a VPN instance used company-wide amongst 2800 employees
- Implemented CloudWatch monitoring and blacklisting for 29800 unsafe IP addresses and activities
- Used Terraform and Jenkins to deploy infrastructure as code using a CI/CD pipeline
- Used Kubernetes to orchestrate the deployment, scaling and management of Docker containers to support NDI application

Razer, Singapore

Software Engineering Intern (Fraud/Payment Operations)

February 2020 – July 2020

- Crafted SQL queries to detect fraudulent Razer Gold (Digital Gaming Currency) transactions, increased detection rate of fraudulent transactions by 46%
- Implemented and tested MongoDB database to capture more unstructured data from game spread to capture new types of transactions added by developers periodically, reduced need for developers to manually update the SQL databases
- Tested Partner APIs between Razer and various games that shared transaction data, found 3 major bugs that were causing 26% of transactions less than \$9.32 to be misreported
- Managed data reporting boards in Power BI and generated reports to stakeholders in trends of fraudulent transactions.

## OPEN-SOURCE CONTRIBUTIONS:

[Zulip](#)

November 2022

- Added a phone number custom profile field type to user profiles with validation of international phone numbers.
- Refactored testing suite to ensure changes passed CI/CD pipeline (frontend and backend Ubuntu/Debian tests)

## PROJECTS:

[Concentrated Liquidity Market Maker](#)

December 2022

- Designed and implemented a CLMM on Algorand referencing Uniswap's V3 implementation.
- Picked up three layers of code from Teal, to Pyteal then Beaker to successfully deploy the project on local version of Algorand blockchain hosted on CMU Docker machines.

[Psst. have you heard this?](#)

April 2021

- Developed a 2D scroller game that works with Spotify's API, basic functionalities of Spotify's app included
- Wrote algorithm to recommend similar songs based on KNN algorithm and song data points
- Aggregated data from user's top songs over various time periods, classified them into MBTI personalities

[Token Swap Dapp](#)

July 2022

- App aggregates liquidity across the bigger Decentralized Exchanges ecosystem and surfaces best prices to user
- Uses 0x Swap API endpoint to do the aggregation, and query and displays ERC20 token list

## ACTIVITIES:

CMU Blockchain Club

Head of Governance team

August 2021 – Present

- Founded Governance team, recruited from and partnered VCs (a16z) and protocols that were willing to delegate governance tokens (successfully received 6 delegations)
- Integrated Twitter API to openly report when our tokens move or are used for voting
- Built from scratch and ran independent ETH and Polkadot validators for the club with 96.3% uptime

## COURSEWORK:

- |   |  |   |
|---|--|---|
| • 15-440 Distributed Systems                                    | • 15-213 Intro to Computer Systems       | • 67-272 Application Development              |
| • 15-210 Parallel and Sequential Data Structures and Algorithms | • 67-262 Database Design and Development | • 15-150 Principles of Functional Programming |
|   | • 15-122 Principles of Imperative        |   |

## SKILLS:

Languages: Python, C, SQL, Typescript, JavaScript, Java, SML, Ruby on Rails, Processing, x86 Assembly, Solidity, HTML, CSS

Databases: MySQL, MongoDB, Redis

Frameworks/Technologies: Git, Flask, Node.js, Jenkins, Kubernetes, Docker, Bootstrap, Linux

Certifications: AWS Cloud Certified Professional | AWS Solutions Architect