Chi-Sheng Liu

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Summary

Passionate programmer who loves to learn new technologies and tools. 3 years experience in web development. Have learned many different things in school including machine learning, distributed systems, blockchain, CTF, etc.

Education

National Taiwan University (NTU)   *Taipei, Taiwan*

MAJOR IN ELECTRICAL ENGINEERING, MINOR IN COMPUTER SCIENCE

- Grade: Undergraduate, Senior
- Expected Graduation Date: January, 2023
- GPA (till now): 4.207/4.3 (top 5% ~10%)

Honors & Awards

2021	**"Best Popularity" and "Most Tracks Completed",** robot car competition in the course "Computer System Laboratory"
2021	**Ranked 15,** AIS3 EOF CTF Qualification
2019	**1st place,** "Intent Retrieval from Online News" competition in the course "Machine Learning"
2019	**Presidential Award,** awarded to students ranked within top 5% in a given semester

Open Source Projects Contribution

apache/submarine [Github Link]

SUBMARINE IS CLOUD NATIVE MACHINE LEARNING PLATFORM.

- I am one of the committers of this project. See Apache committer index.
- I mainly contributed to the Kubernetes custom resource operator part (submarine-cloud-v2 module).

Side Projects

Assuject [Github Link]

ASSUJECT IS A TASK PROGRESS TRACKING SYSTEM, INSPIRED BY JIRA, TRELLO AND NOTION.   *Nov. 2021*

- Midterm project for "Database Management", 2021 Fall.
- User can drag and drop task blocks between columns, add labels and assignees to tasks, etc.
- Frontend: React.js, Material UI
- Backend: Apollo GraphQL server, Prisma ORM, TypeGraphQL, PostgresSQL

Q&A DApp [Github Link]

DISTRIBUTED Q&A SYSTEM DEPLOYED ON ETHERNET   *Jan. 2021*

- Anyone can pay to the smart contract to ask questions and anyone can answer questions. After the post is expired, the author of the answer that has the most upvotes will be awarded.
- Use React.js as the frontend framework, connect to metamask web3, use Solidity as the backend language, deployed on Ropsten testnet.

CampScoreboard [Github Link]

SCOREBOARD WEB APPLICATION FOR THE GAME "MONOPOLY" IN NTUEE ORIENTATION CAMP 2020   *Aug. 2020*

- Realtime scoreboard web application backed by socket.io.
- Admin and NPCs can login and control the scores, status of spaces, special card effects, etc. The changes will be broadcasted to the frontend and trigger re-render.
- Frontend: React.js
- Backend: ExpressJS, MongoDB, Redis

NTUEE Course Website [Github Link]

COURSE PRE-SELECTION SYSTEM FOR NTUEE   *Jul. 2020*

- Used to be the course pre-selection system for NTUEE.
- The website is written in Javascript and the distribution algorithm is written in Python.

yEEtshen [Github Link]

Oct. 2019

- NTUEE Week Game 2019
- Keep shooting other planes and try to get the highest score!
- Written in Javascript. Use PixiJS to render the canvas.

Intent Retrieval from Online News [Github Link]

A COMPETITION ON AIDEA *Sep. 2019*

- Final project for the course "Machine Learning".
- Written in Python, using TF-IDF algorithm and some heuristics.

Skills

Programming Languages

SOPHISTICATED

- Python, JavaScript, C

MEDIUM

- C++, JAVA, TypeScript, Bash, Go, R, Vim Script

BASIC

- PHP, Verilog, assembly (x86 / x64 / RISC-V)

Web Development (Sophisticated)

FRONTEND

- HTML, CSS, JavaScript
- React and its ecosystem (Redux, Create-React-App, Gatsby, Material UI, …)

BACKEND

- Python Flask, NodeJS express, Apollo GraphQL Server

DATABASE

- MySQL, SQLite, PostgreSQL, MongoDB, Redis
- prisma ORM

Cloud (Medium)

DOCKER

- Concepts, Dockerfile, docker-compose

KUBERNETES

- Concepts (Pod, Deployment, Service Account, Ingress, …)
- Custom resource controller implementation

Machine Learning (Basic)

TOOLS

- Keras, PyTorch, TensorFlow, sklearn, numpy, pandas, …

KNOWLEDGE

- CNN, RNN, GAN, SVM, random forest, …

Blockchain (Basic)

TOOLS

- Solidity, truffle, ganache, web3, …

Tools

SOFISTICATED

- Git

MEDIUM

- gdb

Other

MEDIUM

- Unix system programming
- Installation of Linux systems on machines (Gentoo, Arch, Ubuntu, Mint, Kali, …)
- Computer Security (CTF)
- CUDA programming
- Design patterns