SAMUEL LYE

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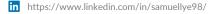
EDUCATION

Cornell University, College of Arts and Sciences   Ithaca, NY
Bachelor of Arts in Economics, Information Science, and Computer Science; GPA: 4.12   08/2018 – 12/2021
- Courses: Object Oriented Programming and Data Structures, Discrete Structures, Functional Programming, Web Design and Programming, Introduction to Machine Learning, Quantitative Analysis, Database Systems, Natural Language Processing

EXPERIENCE

Bloomberg L.P., Trading & Analytics   New York City, NY
Software Engineer Intern   05/2021 – 08/2021
- Built a Custom Formula Builder that supports saving, editing, and deleting custom columns, to be integrated into Bloomberg's Multi-Asset Viewer (MAV), a real-time position and P&L monitor for portfolio management.
- Engineered the end-to-end implementation of the above project including creating the UI in React on the Bloomberg Terminal and writing a backend service in Python and SQL to communicate with the database.

HQ Combat Service Support Command (G5 Branch), Singapore Armed Forces   Singapore
Project Officer   08/2020 – 12/2020
- Developed and executed organizational strategies and policies to drive innovative change and business process engineering within the Army logistics command, such as advocating for an Army cloud management platform and artificial intelligence data analytics platform.
- Created partnerships with leading academic institutions and commercial enterprises to jointly incubate and accelerate technology trials.

Technology and Digital Services, Ministry of Home Affairs   Singapore
Software Engineer Intern   05/2020 – 07/2020
- Researched and applied state-of-the-art natural language processing technologies, in the fields of sentiment analysis, named entity recognition, relation extraction, and more, via tools like Spacy, FlairNLP, and Tensorflow.
- Built a data visualization dashboard using React, Flask, and MongoDB, to streamline data analysis for over 1000 users to quickly digest critical information and make optimal operational decisions in real-time.
- Orchestrated the deployment, scaling, and management of Docker containers using Openshift Red Hat and Docker.

Distributed Ledger Team, Govtech   Singapore
Software Engineer Intern   05/2019 – 08/2019
https://opencerts.io/ | https://www.mom.gov.sg/eservices/sgworkpass
- Frontend development using React and Redux-Saga of an Ethereum based blockchain system, OpenCerts, which creates and verifies educational certificates, that is used by over 18 educational institutions.
- Created a digital identity verification mobile application, SGWorkPass, using the same blockchain system and React Native, that has >1,000,000 downloads in the app store.

Supply Base Central, Singapore Armed Forces   Singapore
Battalion Human Resource/Deputy Operations Officer   01/2017 – 06/2018
- Spearheaded the development of a software-based attendance and warehouse checklist system over 6 different army bases and over 400 personnel, which led the Battalion HR office to attain the prestigious Human Resource Audit Proficiency Award.
- Supervised HR management of over 400 personnel, 100 vehicles, and 25 military cookhouses, in a multi-component Logistics Battalion.

PROJECTS

Cornell Cup Robotics Team   https://cornellcuprobotics.com
Frontend Developer & Business-Communications Team   02/2019 – 05/2020
- Contributed extensively to the React frontend and Blockly interface of an educational programmable robot for users to write scripts.
- Re-designed and developed a website for the Cornell Cup Robotics Team, primarily using HTML, CSS, JavaScript, and Jekyll.
- Planned a college-level robotics competition and worked with sponsor companies to raise awareness to around 10,000 engineering students at the top 200 schools across North America.

Big Red Hacks   https://github.com/samuellye98/corsell
Hackathon   09/2018 – 08/2019
- Presented to a panel of judges from notable technology companies and was awarded winner for best use of HERE.com's map API.
- Developed a mobile e-commerce application using React Native with working features, such as authentication and uploading functions.

TECH STACK

Backend   Docker, Express, Firebase, Flask, MongoDB, Openshift Red Hat, Node.js
Frontend   CSS3, Expo, HTML5, Jekyll, ReactJS, React Native, Redux-Saga, Typescript
Languages   C++, Java, JavaScript, OCaml, Python, SQL