SAMUEL LYE

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EDUCATION

Cornell University, College of Arts and Sciences   📍 Ithaca, NY
                                                                                                                                         📅 08/2018 – 12/2021

Bachelor of Arts in Economics, Information Science, and Computer Science; GPA: 4.12

- 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

The D. E. Shaw Group   📍 New York, NY

Software Engineer (Discretionary Technology)   📅 06/2024 – Present

🔗 https://www.businessinsider.com/wall-street-top-technology-projects-goldman-blackstone-morgan-stanley-2024-8#d-e-shaw-s-generative-ai-approach-encourages-programmers-to-build-their-own-tools-4

- Full-stack development of applications for the discretionary business, including a portfolio management system and DocLab, a database library of millions of external documents, like regulatory filings and news articles, that can be queried for summaries or specific info.
- Integrated Generative AI in firmwide applications, including an LLM Gateway interface and a LLM-powered writing assistant tool.

Stripe   📍 Seattle, WA

Software Engineer (Connect)   📅 02/2022 – 06/2024

🔗 https://stripe.com/docs/connect/connect-embedded-components/quickstart | https://stripe.com/docs/connect/express-dashboard

- Scoped and developed Connect embedded components, which are white-labeled UI components that integrate Stripe product functionality into platform websites with just a few lines of code, reducing go-live times from months to under a week.
- Leveraged a diverse set of frontend technologies and Web APIs, such as React, Typescript, GraphQL, Apollo Client, shadow DOM and cross-domain iframe communication, including contributing to React Spectrum for accessibility support in iframes.
- Engineered the backend development of several APIs, such as the Account Sessions API for integration with embedded components and improved the CSV generation limit for the Express dashboard from only 300 to 2000, significantly enhancing user experience.
- Spearheaded the development of an embeddable Know Your Customer (KYC) component within an ambitious 2-month timeline, which facilitated the successful closure of the multi-million contract between Stripe and Xero and prevented millions in contractual penalties.
- Authored interactive and downloadable code samples in 7 backend languages and 4 frontend frameworks. This initiative enabled users to integrate with embedded components in less than 5 minutes, enhancing the overall adoption of the product.
- Established robust observability for production systems by developing comprehensive dashboards on Splunk and SignalFx, as well as implemented visual regression testing and synthetic testing via Amazon CloudWatch Synthetics, reducing incident rates by >75%.

Bloomberg L.P., Trading & Analytics   📍 New York, 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.

Ministry of Home Affairs   📍 Singapore

Software Engineer Intern (Technology and Digital Services)   📅 05/2020 – 07/2020

- Researched and applied 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.

Govtech   📍 Singapore

Software Engineer Intern (Distributed Ledger Team)   📅 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.

TECH STACK

Backend   Docker, Express, Firebase, FastAPI, MongoDB, Node.js
Frontend   CSS, HTML, ReactJS, React Native, Typescript
Languages   Java, JavaScript, Python, Ruby