# Leon Chou, Software Engineer

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## **Skolem Technologies**

Staff Engineer (3 year tenure) (2021-current)

Second full-time engineering hire, and then promoted to staff engineer after 1 year.

- WalletConnect execution pipeline Designed, implemented, and maintained a pipeline for executing trades using the WalletConnect protocol.
- Overseer Designed and implemented (from scratch) a pipeline for managing our users, organizations, and accounts. This included a permissioning system, a JS of OCaml (JSOO) / React frontend, and a separate stack within our OCaml backend for managing users.
- **Zine** Designed, implemented, and maintained four separate pipelines for notifications, through email, Slack, Telegram, and hand-distributed pdfs.
- **Team-building** Interviewed and hired 9 engineers, and mentored 4 interns.

## Square Inc. [Mobile Security]

Software Engineer (2019-2021)

Hired as an intern, promoted to full time out of college after 3 months. Worked on a team that was responsible for securing the Square mobile app.

- Differ (tooling) Python library and executable to connect, apply rootkits, and fetch telemetry on Android devices. Used to detect malicious apps impersonating Square. Took a 2 developer week process and turned it into a 4 day automated process (with some babysitting).
- Backend Maintained our existing Java backend to reduce round trips, upgrade cryptographic primitives, and augment existing detections. Went from 4 round trips to 2 round trips for 75% of our users.
- CI/CD Maintained and upgraded our existing CI/CD pipeline to support new features and reduce build times. Reduced a yearly upgrade process from 2 developer weeks to 4 hours of CI pipelining.

## CSAW CTF Lead

Full-stack development (2019, 2020)

Ran two CTFs for NYU, with 1000+ participants each. Organized and ran a team of 20+ people to run the CTF.

- Backend Setup infrastructure for several challenges and a webserver to host the CTF. Involved hosting several containers in order to sandbox challenges, and configuration of a webserver to host the CTF.
- Frontend Designed and implemented a frontend for the CTF, including a scoreboard, challenge pages, and a registration page.

## Cisco Umbrella [OpenDNS]

Intern (2018)

Hired as an intern for the summer. Worked as a data science engineer to identify fraud and abuse on the internet. Owned a variety of projects, including:

• **NLP scraping** - Python and Golang large scale data pipelining to scrape and analyze data from the internet. Passed data to a machine learning pipeline for classification.

#### Globlon

OSS - OPAM 2022

Published an opam package to expose shell-based globbing to OCaml.

## AWS ARM SSM plugin

2022

Published an ARM / M1 release of the AWS SSM plugin for Terraform, in the absence of an official release.

### **UGO** Ghidra plugin

2020

Published a Ghidra plugin for decompiling and analyzing Go binaries.

## **VE International**

2018,2019

Implemented a Node.JS SSO backend and a CMS for VEI, a non-profit that teaches high school students about business.

## OSIRIS Security lab

2016-2020

Co-led a security research group at NYU. Organized, played, and ran CTFs, workshops, and talks.

### HULEDET

2016

Acted as software engineer and CTO for HULEDET, a mailing list for birthday deals and freebies.

## Fluid

2017

Implemented a predictive model for exercise using an XBox Kinect in order to help users exercise.

## Safety In Numbers

2014

Implemented a webapp to help users find safe routes to walk in NYC, using public crime data.

React
Terraform
AWS Cloud services

Tech stack

