

Leon Chou, Software Engineer

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📄 Skolem Technologies

Staff Engineer (2021-current)

Hired as frontend engineer, promoted to full stack, and then to staff engineer after 1 year. Owned a variety of projects, including:

- **Cloud infrastructure** - Designed, implemented, restructured, and maintained cloud infrastructure. This included ECS, Terraform configurations, and a CI/CD pipeline.
- **WalletConnect execution pipeline** - Designed and implemented a pipeline for executing trades using the WalletConnect protocol. This included an OCaml backend, several MySQL tables, and several React/NextJS pages and components. Took our existing execution pipeline and augmented it to support a new protocol, and added accounting support across the board.
- **Administrative pipeline** - Designed and implemented 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, as well as new handlers for all key management functionality. Reduced several 2 hour manual administrative processes to a 2-click interface.
- **Notification pipeline** - Designed, implemented, and maintain four separate pipelines for notifications, one through Zulip, one through Telegram, one through generated PDFs, and the final one through email.

📄 Square Inc. [Mobile Security]

Software Engineer (2019-2020)

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. Owned a variety of projects, including:

- **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.

📄 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.

Fish-planet

2023

Using OpenAI APIs, produced a distributed frontend (Vite + React + Typescript), backend (golang), terraform configuration, with protobufs, for a website that acts as an isolated fish tank.

Globlon

OSS - OPAM 2022

Contributed to the OCaml ecosystem, adding a new module for shell-based globbing.

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

CSAW CTF Lead

2019, 2020

Ran two CTFs for NYU

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.

Hobbies

- 1400 chess.com; 1700 lichess
- 1000+ hours in Path of Exile
- 14 years of violin

Tech stack

🌀 React
🔗 Terraform
📦 AWS Cloud services

🐳 Docker
🐘 MySQL

Languages

(this resume in L^AT_EX)

Java
Javascript / Typescript
Golang
Ocaml
Bash
Python

Education

BA Computer Science

New York University 2016-2020
Stuyvesant H.S. 2012-2016