# Derrick Lee

#### Contact Info

 ${\rm dlee 3@scu.edu} - 408-823-7288 - {\rm github.com/drklee 3} - {\rm linkedin.com/in/drklee} - {\rm dlee.dev}$ 

#### **EDUCATION**

# B.S., Computer Science Santa Clara University

June 2020 (expected)

Relevant Coursework:

- Object Oriented Programming (C++)
- Database Systems (Oracle SQL/PHP)

- Data Structures (C++)

- Theory of Algorithms
- Operating Systems (C/Rust)
- Programming Languages (Python, Java, Scala)
- Theory of Automata and Formal Languages Computer Security\*
- Theory of Automata and Formal Languages Co - Computer Networks (C) - De
  - Design Management of Software\*

(\* – in progress)

### EXPERIENCE

### Celo, Software Engineering Intern

# June 2019 - September 2019

- Implemented social backup and recovery in the mobile wallet to keep users' mnemonic seed phrase safe with the help of other users. Provides users an option to split their mnemonic phrase to keep safe with friends.
- Used TypeScript, React Native, and Redux.

## Open Source Developer

### January 2018 - Present

- Fixed incomplete features, improved and clarified code examples and documentation for **serenity**, a **Rust** library for interacting with the chat and VoIP platform Discord's API.
- Implemented bug fixes and security fixes to open source Node.js chat bot LuckyBot.

# Relevant Skills

### Languages

- TypeScript, JavaScript, Rust, C, C++, Python, HTML5, CSS, PHP, SQL, Bash

#### Related Technologies

- Git, React, React Native, Redux, Redux Saga, Node.js, GraphQL, PostgreSQL

# PROJECTS

#### sushii-bot (14,000+ lines of code)

### December 2017 - Present

- Chat bot for Discord with a ranking system, activity tracker, moderation tools and more with over 64.000 total users.
- Written in **Rust** with a **PostgreSQL** database, **diesel-rs**, and connection pooling with **r2d2-diesel**.
- Uses a **TypeScript** web server with **Koa** and **Puppeteer** to generate images from HTML.
- Paired a website with user leaderboards and statistics made with **Node.js**, **Next.js**, **React**, **Koa**, **Apollo** server and client for **GraphQL** endpoints, and **Join Monster** for batch data fetching.

# Operating System Simulations (5,000+ lines of code)

#### April 2018 – June 2018

- Runs sequential and random disk reads with **C**, determines time differences and possible causes based on both physical and OS aspects. Programs and set up executed with **Bash** scripts.
- Multi threaded simulation written in **Rust** of different memory page replacement algorithms with given page requests and a range of memory sizes. Data visualized with plots made in **R**.
- Benchmarks in **Rust** to determine the overhead of synchronization primitives (Mutex) and lock contention.