Derrick Lee

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EDUCATION

B.S., Computer Science (Math) Santa Clara University

June 2020 (expected)

Relevant Coursework:

- Object Oriented Programming (C++)
- Data Structures (C++)
- Operating Systems (C/Rust)
- Theory of Automata and Formal Languages (in progress)

Relevant Skills

Languages — Rust, JavaScript, C/C++, Python, HTML5, CSS, ARM Assembly, SQL, Bash **Related Technologies** — Git, Node.js, Koa, Apollo, GraphQL, PostgreSQL, React, Express, Next.js, Vue.js

PROJECTS

sushii-bot

December 2017 - Present

- Chat bot with a ranking system, activity tracker, moderation tools and more with over 50,000 total users.
- Written in **Rust** with a **PostgreSQL** database, **diesel-rs**, and connection pooling with **r2d2-diesel**.
- Paired a website with user leaderboards and statistics made with Next.js, React, Koa, Apollo server and client for GraphQL endpoints, and Join Monster for batch data fetching.

Operating System Simulations

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.
- 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 with **R**.
- Benchmarks in **Rust** to determine overhead of synchronization primitives (Mutex) and lock contention.

vlive-rs

April 2018 – May 2018

- Rust library for livestreaming platform VLive's API to fetch channel and video data.
- Implemented on the **Hyper** client with Futures and **Request** for a synchronous API.