Derrick Lee

Contact Information

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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, C/C++, JavaScript, TypeScript, Python, HTML5, CSS, ARM Assembly, SQL, Bash

Related Technologies

Git, Node.js, GraphQL, PostgreSQL, React, Koa, Apollo, 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 in **R**.
- Benchmarks in **Rust** to determine the 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 asynchronous **Hyper** client with Futures as well as **Reqwest** for a synchronous API.