

Daren Liang

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EXPERIENCE

- **Citi** New York, NY (remote)
Software Engineer Contract May 2022 - Present
 - **Risk Management:** Quant risk libraries
- **Oanda** Toronto, ON
Software Developer Intern May 2020 - August 2021
 - **Forex and CFD Trading Systems:** C++ and Python microservices development

EDUCATION

- **University of Toronto** Toronto, ON
Computer Science Specialist Sep. 2018 - Present
 - **University of Toronto Scholar**
 - **2018-2020 Dean's List Scholar**

PROGRAMMING SKILLS

- **Languages:** Go, C/C++, Python, JavaScript/TypeScript, Java, Scala, SQL
- **Technologies/Tools:** AWS, Docker, React.js, Vue.js, Qt

PROJECTS

- **Nikel API:** Free and open data API for the University of Toronto.
 - **RESTful API:** Using the Gin Go web framework.
 - **Selenium WebDriver and BeautifulSoup:** Web scraping and data parsing.
 - **Caching:** Requests are cached and stored in a key-value database backed by BadgerDB.
- **MikuBot:** General purpose Discord bot serving more than 8,000 servers.
 - **Amazon DynamoDB:** Database for storing server data.
 - **Docker:** Ready to deploy Docker image.
- **Dsfs:** A highly-experimental filesystem in userspace using FUSE with an exotic backend.
 - **Exotic backend:** Files, folders, and transactions are stored using Discord attachments.
 - **Append-only log-structured filesystem:** Supports automatic snapshots and rollback.
 - **Realtime synchronization:** Syncing files and folders between remote clients in realtime.
 - **Performance optimizations:** A variety of techniques are used such as buffering and checksums to ensure there are no unnecessary uploads/downloads and the differences between local and remote states are minimal.
 - **Cross-platform support:** Supports major OSes such as Windows, macOS, and Linux.
 - **Additional information:** <https://www.darenliang.com/posts/fuseing-for-fun/>
- **Decentralized Text Chat Web App:** Peer to peer text chat using WebRTC.
- **Quteman:** A simple Postman alternative written in C++ and Qt.
- **Resauce:** A work-in-progress file rename utility written in C++ and Qt. Developed with a team of two.
- **Gomatheval:** Evaluates basic math expressions in Go using Shunting Yard and Reverse Polish.
- **Mal-api:** Python library for querying data from MyAnimeList
- **Jikan-go:** Go wrapper for Jikan API.

INVOLVEMENTS

- **UTM Robotics:** utmrobotics.com (currently archived)
 - **Lead Web Developer:** Worked on website redesign. Website built with Jekyll.