

Daren Liang

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EXPERIENCE

- **Citi** New York, NY (remote)
Software Engineer Contract *May 2022 - Present*
 - **Risk management:** Quant risk libraries
 - **Technologies:** NumPy, pandas, Dask, ClickHouse, MySQL
- **Oanda** Toronto, ON
Software Developer Intern *May 2020 - August 2021*
 - **Backend trading systems:** C++ and Python microservices development
 - **Technologies:** Ansible, Protobuf, ZeroMQ, Prometheus/Grafana, QuickFIX, Finagle

EDUCATION

- **University of Toronto** Toronto, ON
Computer Science Specialist and Applied Statistics Minor *Sep. 2018 - Present*
 - **University of Toronto Scholar**
 - **2018-2020, 2021-2022 Dean's List Scholar**

INVOLVEMENTS

- **Imglabs.io** Toronto, ON
Co-Founder *April 2022 - Present*
 - **Edge-capable image proxy service:** Proxy, cache, and transform images at the network edge
 - **Technologies:** Serverless computing, Rust, WebAssembly, Supabase, PostgreSQL, React, Next.js, Tailwind CSS

PROGRAMMING SKILLS

- **Proficient:** Python, Go, C, JavaScript/TypeScript, Java, SQL
- **Competent:** C++, Rust, Scala

PERSONAL PROJECTS 🐙

- **Nikel API:** Free and open data API for the University of Toronto
 - **RESTful API:** Using the Gin 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 9,000 servers (discontinued)
 - **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
- **Mal-api:** Python library for querying data from MyAnimeList