Daren Liang
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 darenliang
in darenliang

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 and Applied Statistics Minor *Sep. 2018 – Present*
  - ○ **University of Toronto Scholar**
  - ○ **2018-2020, 2021-2022 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 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. 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.