

## WORK EXPERIENCE

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- **Citi** New York, NY  
*Software Engineer Contract* May 2022 - Present
  - **Risk Analytics Products:** Quant Risk Libraries / Wholesale Forecasting Platform
  - **Technologies:** NumPy, pandas, Dask, GraphBLAS, 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

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- **University of Toronto** Toronto, ON  
*Computer Science Specialist and Applied Statistics Minor* September 2018 – April 2023
  - **Honours Bachelor of Science with High Distinction:** 3.85/4.00 CGPA
  - **University of Toronto Scholar**
  - **2019, 2020, 2022, and 2023 Dean's List Scholar**

## INVOLVEMENTS

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- **Imglabs.io** Toronto, ON  
*Co-Founder* April 2022 – Present
  - **Edge-capable image proxy service:** Proxy, cache, and transform images at the network edge
  - **Image processing in WebAssembly:** Sub-second image transformations in memory-constrained environments
  - **Serverless architecture:** Cost conscious and effortless scaling
  - **Currently in beta:** Free to try out; paid plan available for production customers
  - **Technologies:** Rust, JavaScript/TypeScript, WebAssembly, React, Tailwind CSS, Next.js, Cloudflare Workers Platform, AWS S3, ClickHouse, Supabase, GoTrue, PostgreSQL, PostgREST, Docker, New Relic, Stripe

## PROJECTS

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- **Dsfs** ([darenliang/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/>
- **Nikel API** ([nikel-api/nikel](#)): Free and open data API for the University of Toronto
- **MikuBot** ([darenliang/MikuBot](#)): General purpose Discord bot serving more than 9,000 servers (discontinued)
- **Quteman** ([darenliang/quteman](#)): A simple Postman alternative written in C++ and Qt
- **Resauce** ([darenliang/resauce](#)): A work-in-progress file rename utility written in C++ and Qt
- **Mal-api** ([darenliang/mal-api](#)): Python library for querying data from MyAnimeList

## SKILLS

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- **Languages:** Python, Go, C/C++, Rust, JavaScript/TypeScript, Java, Scala
- **Assessments:** CodeSignal: 842/850