

BANIN ABRAR

🌐 baninabrar.me — ✉ babrar@uwaterloo.ca — 🌐 in/baninabrar — 📞 babrar — 📞 519-729-6017

SUMMARY

- Languages: C/C++, Python, JavaScript (ES6, TypeScript), Perl, SQL, Bash, VimScript, VHDL
- Tools: GCP, MongoDB, Postgresql, Node, React, GraphQL, Docker, Postman, Git, RESTful design

EXPERIENCE

Loblaw Digital

May – Aug '20

Site Reliability Engineering Intern (Billing Optimization)

Toronto, ON

- Built internal tools to assist Site Reliability Engineering teams with billing optimization in GCP.
- Saved \$50,000 annually by writing Terraform and BigQuery SQL scripts as a part of an SRE initiative to migrate logging infrastructure completely from Splunk to serverless Stackdriver (GCP).
- Authored message queue wrappers to integrate new cloud policies into existing cloud resources.

FLIR Systems Inc. (Aeryon Labs)

May – Aug '19

Data Tools Intern (Infrastructure)

Waterloo, ON

- Architected a cloud-agnostic data warehouse solution using open source technologies to handle rapidly evolving schemas and to unify data tooling across all engineering teams.
- Achieved 60% lower latency on read times from data warehouse by creating a Presto-Hadoop setup.
- Configured single sign-on for internal services and added a secure gateway to all Hadoop clusters.

JANA Solutions

Sept – Dec '18

Software Development Intern (Core)

Aurora, ON

- Built a data analytics backend in Python for the company's core probabilistic modelling software.
- Improved company-wide asset data retrieval time from Postgres by 10x by refactoring core schemas.
- Added smart visualization features to existing data analysis tool using React components in Dash.

Integrated Device Technology, Inc.

Jan – Apr '18

Software Engineering Intern (Video Compression)

Waterloo, ON

- Accelerated frame processing rate by 12% using AVX-512 instructions for wider memory operations.
- Built register pipeline designs for H.265 chip in Verilog that reduced negative slack by 30%.

OTHER EXPERIENCE

UWaterloo Midnight Sun - Solar Race Car

- Researched non-linear optimization problems pertinent to the application of solar cells modules.

Waterloop Student Design Team

- Migrated a static website onto the MERN stack complete with new features and functionalities.

PROJECTS

- **LTor** – Web-based BitTorrent client that uses lightweight UDP trackers for P2P file transfers.

Other projects/open-source contributions: [ubuntu/gnome-shell](#) ↗, [geekcane](#) (IoT) ↗

EDUCATION

University of Waterloo

Class of 2023 (expected)

Candidate for Honours Bachelor of Applied Science in Computer Engineering

- President's Scholarship of Distinction for having more than 95% admission average.