

# Akshay Pall

[akshay.pall@uwaterloo.ca](mailto:akshay.pall@uwaterloo.ca) • [akshaypall.me](https://akshaypall.me) • [github.com/AkshayPall](https://github.com/AkshayPall)

## Experience

**Bloomberg** | Software Engineering Intern (Infrastructure) *Jan 2020 - April 2020*

- Designed a real-time, data-agnostic distributed alerting system on custom criteria in Python
- Utilized custom Solr for prospective search on criteria (Solr queries), Kafka for event I/O, and ComDB2 for persistence and authentication
- Achieved sub-second SLA for 300k+ criteria/queries end-to-end for client
- Provided observability and alarming on system metrics via Grafana

**Facebook** | Software Engineering Intern (Open-Source Database) *May 2019 - Aug 2019*

- Wrote a PrestoDB connector for Cubrick, an in-memory MOLAP DB, to leverage its low-latency with Presto's scalability and extensibility in Java using Thrift for RPC
- Implemented query filter pushdown optimization to smartly move portion of compute to storage, reducing "scanned to returned" data ratio to as low as 1:1
- Identified maximal set of query filters to push down to table scan by converting and traversing the filters to conjunctive normal form at runtime

**Oath** | Software Engineering Intern (Web Backend) *Sep 2018 - Dec 2018*

- Wrote crawler for Yahoo! Calendar to find and schedule missing notifications, remediating issues for over 2 million users in Java
- Observed and corrected bugs across Yahoo services: message queue (CMS), distributed NoSQL DB (Sherpa), and search index (Vespa); and in ical4j Calendar Library

**Yahoo!** | Software Engineering Intern (Backend) *Jan 2018 - Apr 2018*

- Worked on Mail Migration Framework, moving over 80M accounts from AOL to Yahoo
- Rewrote core components of framework to be multi-threaded to improve adherence to SLAs
- Built CLI tool to run individual jobs on-demand for troubleshooting

**CBC/Radio-Canada** | Native Apps Developer Coop (Android) *May 2017 - Aug 2017*

- Developed major UI/UX features such as a theme engine for the CBC News App, increasing user customization for over 400k+ MAUs, resulting in 25% increase in user session time
- Contributed to internal Android framework to reduce development time in sister CBC apps

## Education

**University of Waterloo** Bachelor of Software Engineering

*Sep 2016 - May 2021 (expected)*

85% cumulative GPA, 2x Term Dean's Honours List