


# Akshay Pall

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## EDUCATION

University of Waterloo  
B.SE (Software Engineering)  
3B (Junior)

Sep. 2016 - Present

GPA: 3.74/4.0

Cumulative Average: 85%

## SKILLS

Languages:

Java • C/C++ • Scala • Python

•  $\LaTeX$  • Bash

Technologies

FBThrift • Guice • PrestoDB •

Cubrick • Jetty • Jenkins •

Screwdriver • Jersey • MySQL

• Vespa • Maven • Gradle •

Flask • Android

Areas of Interest:

Distributed Systems

Backend Engineering

Infrastructure Engineering

## AWARDS

Term Dean's Honours List (2x)

President's Research Award

Schulich Scholar for UofT

Lieutenant Governor's Ontario  
Heritage Award

## ACTIVITIES

University of Waterloo

Engineering Ambassador

5x Waterloo Software

Engineering Academic Rep

## EXPERIENCE

**Facebook** | Software Engineering Intern

Summer 2019 - Present | Menlo Park, CA

- Working on **PrestoDB**, a **petabyte-scale** open-source SQL query engine
- Wrote a connector for **Cubrick**, an in-memory **MOLAP** DB, to leverage its storage speeds with Presto's compute scale
- Implementing **query filter pushdown** to reduce overhead and align Cubrick-via-Presto query performance with direct clients

**Yahoo!** | Software Engineering Intern

Fall 2018 | Sunnyvale, CA

- Main **point of contact** for engineering questions and user complaints for Yahoo! Calendar, a product with **100+ million MAUs**
- Improved upon **deployment pipeline** to construct environments more rigorously and periodically auto-deploy, increasing uptime to **95%**
- Pushed code to **open-source ical4j** library consisting of bugfixes, legacy version maintenance, and test coverage improvements
- Wrote crawler for Yahoo! Calendar to find and schedule missing notifications, remediating issues for over **2 million users**
- Observed and corrected bugs across Yahoo services: **message queue** (CMS), **distributed NoSQL DB** (Sherpa), and **search index** (Vespa)

Winter 2018 | Sunnyvale, CA

- Contributed to Oath Migration Framework, moving over **80 million users** from AOL to Yahoo Mail
- Reconfigured system workflow properties to **remove deadlocks** and **reduce job failure** rates by **10%**
- Produced and consumed additional metadata for all jobs to improve **context reconstruction** on recovery
- Rearchitected several jobs to adhere to AOL Mail's rate limit by **distributing** requests over multiple threads
- Enhanced various admin APIs using **Jersey** for use in controlling various migration processes

**CBC/Radio-Canada** | Android Developer Coop

Summer 2017 | Toronto, ON

- 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

## PROJECTS

**Lacs Compiler** Compiler for a subset of Scala

- Supports type checking, inner functions, first class functions, closures, and runtime garbage collection via **Cheyney's Copying** algorithm
- Compiles into Mips assembly using CYK parsing and an abstract syntax tree written in **Scala**

**AutoResizingTextView** Open-Source Android Library

- A custom TextView which **automatically adjusts** its font size if the containing text is being clipped (out of bounds)
- Addresses issue present in Android until Google released a similar fix as part of Android API 26

**Songify** Beautiful Android Music Playback App with a Statistical Touch

- Scraped billboard.com to track top 100 songs over time in **Python**
- Wrote RESTful backend service to provide smart info, statistics, and cover art data using **Flask**