

# Sahil Jain

4B Software Engineering

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## SKILLS

**Android:** SQLite, Robolectric, Espresso, JUnit, Mockito, Litho

**Frontend:** Angular, React, HTML/CSS, JavaScript, Ruby/Rails, PHP

**Backend:** Java, C++, Scala, Node.js, Python, SQL, MongoDB, Cassandra, Thrift, Flatbuffers

**Software:** IntelliJ IDEA, Git, SVN, Mercurial, Vim, Tmux, MySQL, Jenkins, AWS EC2

## EXPERIENCE

### FACEBOOK SOFTWARE ENGINEERING INTERN

Fall 2017 | New York City

- Live Videos team, enhanced the viewing experience for the **Android** client, used by **millions daily**
- Improved video discoverability by showing suggested Live videos, using the Litho framework
- Improved fullscreen watch time by **0.5%** by implementing a fullscreen button
- Developed feature to tag and invite friends in comments
- Decreased client data usage by **0.6%** by allowing users to mute comments via a button
- Redesigned comment composer as part of app-wide redesign

### GOOGLE SOFTWARE ENGINEERING INTERN

Winter 2017 | Waterloo

- Developed features for WALT, an open source **Android** app + hardware which measures latency of physical sensors for Android/ChromeOS devices
- Implemented live graphs which show during measurements and provide greater insight than the final result
- Made it easier to debug latency by adding physical events to **Android Systrace**
- Added an accelerometer latency test for VR applications
- Improved code health by starting a **unit test suite** for the Android app
- Improved Android app usability by developing a Settings page to customize measurements
- Developed a Python server to upload test logs

### FACEBOOK SOFTWARE ENGINEERING INTERN

Spring 2016 | Menlo Park

- Developed features for C++ cross-platform data-syncing library in **Messenger**
- Reduced Messenger background data usage by **1-2%** overall using Invertible Bloom Filters for set reconciliation
- Optimized state logic to reduce round-trip requests
- Presented recommendations for **Zstandard** dictionary compression using benchmarks
- Recommended changes to Flatbuffer schemas to reduce serialized message size
- Independently contributed to **Google Flatbuffers** open source project

**PAGERDUTY** BACKEND SERVICES DEVELOPER

Fall 2015 | Toronto

- Improved reliability, scalability, and performance of critical realtime **Scala services** in the alerting pipeline
- Increased data archival speed **10x** by implementing concurrency
- Optimized Cassandra queries, improved SLA metric accuracy, and reduced transient alerts

**REMIND101** SOFTWARE ENGINEERING INTERN

Winter 2015 | San Francisco

- Developed for Android client with over **5 million** downloads
- Independently developed Office Hours feature, used by over 50% of teachers
- Implemented **Material Design** and enhanced notifications for **Android Wear**
- Improved test suite performance by migrating to **Robolectric**, and reconfiguring Jenkins
- Made UI improvements to Rails and **Angular** app

**PIVOTAL LABS** AGILE ENGINEERING INTERN

Spring 2014 | Toronto

- Prototyped and released Android apps using **TDD** and **Agile**
- Shipped mobile payment app and XMPP chat app
- Learned Android testing best practices from the creators of Robolectric

## PROJECTS

**CHESS AI**

Java, Javascript, Amazon EC2

- A computer player using the minimax algorithm with alpha-beta pruning

**WHITEBOARD**

Node.js, ExpressJS, MongoDB

- A platform to connect developers
- **Best Design Award** at HackWATERLOO

**DIGIT RECOGNIZER**

MATLAB, JavaScript

- Used MNIST dataset to train a **neural network** via backpropagation

## EDUCATION

**UNIVERSITY OF WATERLOO**

BACHELOR OF SOFTWARE ENGINEERING

Expected April 2018 | Cumulative average: **91.8%**

## AWARDS

**University:** Dean's Honour List, top 10% of class every term, President's Scholarship

**High School:** 1st in school in Fermat/Euclid/CCC/SIN, Governor General's Award