

# Jonathan Medhanie

604-440-5769 | jonathanmedhanie@gmail.com

## EDUCATION

### UNIVERSITY OF BRITISH COLUMBIA

Bachelor's Degree,  
Mathematics &  
Computer Science  
Vancouver, BC  
Graduated: April 2021

## SKILLS

C++ • Java • Python •  
Machine Learning • SQL •  
Docker • Golang •  
Distributed Systems •  
Hadoop • AWS

## COURSEWORK

### Computer Science

Advanced Algorithm Design  
Computational Optimization  
Computer Vision  
Geometric Modelling  
Relational Databases  
Software Engineering

### Mathematics

Applied Linear Algebra  
Differential Equations  
Discrete Math (Honours)  
Graph Optimizations  
Multivariable Calculus  
Number Theory  
Probability

## LINKS

[johnnymedhanie.github.io](https://johnnymedhanie.github.io)  
[github.com/johnnymedhanie](https://github.com/johnnymedhanie)  
[in/jonathanmedhanie/](https://in/jonathanmedhanie/)

## WORK EXPERIENCE

### Software Development Engineer | Amazon, *Alexa Skills*

August 2020 - May 2021

- Implemented a new skill promotion feature that would analyze **every Alexa skill** for malicious intent, immediately flagging and blocking updates to internal skill repository while notifying security teams
- Led the Node 12 migration effort for our internal AWS Lambda runtime environment, which includes code changes for deprecating runtime execution code and updating editor linter
- Worked on the Metrics analytics pipeline which aggregated alarm data and generated business reports for stakeholders, providing insight into customer usage during Alexa skills development cycle

### Software Engineer Intern | Twitter, *Real Time Storage*

June 2019 - August 2019

- Redesigned Manhattan's data exporter pipeline, Twitter's real-time distributed database that stores all crucial data including tweets, user info and media metadata, serving million of queries per second
- Optimized Exporter performance by a factor of **200x**, reducing file count from **4.5 million** to **20 thousand** during Export operation as a result of implementing custom MapReduce jobs that splits and merges dataset partitions intelligently
- Tuned Hadoop file system and MapReduce configurations during execution to improve CPU and storage use, reducing total job duration from **4 hours** to **20 minutes** on Twitter's largest cluster

### Software Engineer Intern | Cisco Systems, *Cloud Infrastructure*

April 2018 - August 2018

- Optimized in-house AWS Virtual Machine healthchecker by reducing number requests made by pattern matching ip addresses/port, reducing time to completion from **30 minutes** to **25 seconds**
- Implemented a distributed tracing system for our API endpoint, allowing observability into transactions, latency and durations of each user's unique request
- Refactored production databases' schema minimizing query duration

## PROJECTS

### **Dawn** | React Native Social Networking app

May 2021 - Present

- Co-founded an interests-focused social media app, where users profiles are filled with their interests and conversation prompts
- With over 500+ users and over 80 daily active users, it's been published to the Apple App Store and Android Store
- Consistently spoke with customers, building new features like 'Events' where users can scan an invite QR code for an upcoming event to meet other users to find friends