Jonathan Medhanie

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EDUCATION

UNIVERSITY OF BRITISH COLUMBIA
Bachelor's Degree, Computer Science & Mathematics
Vancouver, BC
Sept 2016 - April 2021

SKILLS

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

COURSEWORK

Algorithm Design (Graduate)
Computational Optimization
Computer Vision
Geometric Modelling
Relational Databases
Software Engineering
Applied Linear Algebra
Complex Analysis
Discrete Math (Honours)
Graph Optimizations
Multivariable Calculus
Number Theory

LINKS

Website:

johnnymedhanie.github.io

Github:

github.com/johnnymedhanie

Linkedin:

in/jonathanmedhanie

WORK EXPERIENCE

Software Development Engineer | Amazon, *Alexa Skills*

August 2020 - Current
- Currently working on the Metrics analytics pipeline which allows 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, Twitter's distributed database that stores all tweets and user data while serving 10 million queries per second across the world
- Optimized Exporter file count from **4.5M** to **20K** during Scan operation by implementing custom MapReduce jobs that splits and merges dataset partitions intelligently
- Tuned Hadoop file system and MapReduce configuration during MapReduce to improve CPU/memory 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 durations of each user's unique request
- Refactored production databases' schema minimizing query duration

PROJECTS

Sentify | Music Sentiment Analysis with Python/R
June 2018 - September 2018
- Utilizes natural language, text processing and machine learning to plot the variance of emotions in a songs given any musical artist
- Powered by making calls to Spotify and Genius' API detailed lyric and music library, taking an average of both the song's valence and energy in lyrics and tune.
- Plots processed data to dynamic web page deployed on Heroku

Moment | React Powered Productivity Browser Extension
May 2018 - January 2019
- Extension that periodically notifies user of personal achievements meant to motivate user to continue improving
- Architected, tested and deployed our backend which served authenticated requests
- Integrated with Chrome API to trigger database requests, periodic user view updates and timed notifications

EXPERIENCE

O11ycon - System Observability Conference | Speaker
August 2018 | San Francisco, CA
- Selected to speak and present the flaws of monitoring tools