

ARUN RANGANATHAN

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SUMMARY

- Experience building and maintaining robust distributed scalable systems.
- C++ (CMake), Python, Java (Android), JavaScript, SQL, Golang, C, NodeJS
- Node.js, Django, Angular 2, AngularJS, CloudSQL, PostgreSQL, MySQL, RabbitMQ, Redis, Kubernetes, OpenShift, Celery, gRPC, TensorRT, TensorFlow, OpenVINO, OpenCV, NumPy, Java, Protocol Buffers, React

EXPERIENCE

Top Hat

Full Stack Engineer

September 2020 – Present

Toronto, ON

- Worked on textbook version control system which accounted for majority of Top Hat's revenue.
- Developed front end UI for merge control that allows existing content to be updated with professors discretion.
- Improved merge control flow architecture that allows auto-revision of textbooks to be sent between any content.
- Refactored old code into more readable code while improving the performance by nearly 90%.
- Formulated a new business idea, created a proposal and worked POC by recruiting 3 software developers and a product manager.
- Interviewed software engineering candidates and helped hire few engineers.
- Helped debug P0 bugs and device an immediate and long term solution to the problem.
- Onboard and mentor new team members and be always be available to pair on a problem.

Paravision

Computer Vision Engineer

April 2019 – Present

Toronto, ON

- Decreased latency by 19% (P95) and improved throughput by 150% (P95) by re-architecting streaming app with asynchronous networking and parallel computing principles.
- Quadrupled ETL throughput (2MM to 8MM) by scaling with Kubernetes speeding up model training time.
- Configure Openshift platform to host micro-services on bare-metal.
- Constructed facial recognition gRPC server with clients in C#, NodeJS, Python3 and C++.
- Built liveness C++ SDK on Windows and Linux using OpenCV, Tensorflow, TensorRT and OpenVINO.

The League

Backend Developer

May 2018 – August 2018

San Francisco, CA

- Develop core micro-services that replaced parts of monolithic backend deployed in GCP Kubernetes.
- Reduce number of calls to PostgreSQL by implementing trigger based caching.

The League

Android Engineer

January 2018 – April 2018

San Francisco, CA

- Rewrite the messaging platform. Optimize how messages are received, stored and managed.
- Increase user activity by developing custom photo-messaging capabilities in chats and optimizing the loading and uploading of photo-messages.

Aspire Financial Technologies

Backend Developer

August 2016 – April 2017

Toronto, ON

- Develop query-able RESTful API endpoints on Django.
- Engineer aggregating algorithms that compile into complex financial math on PostgreSQL and optimized it to run in real time.

OPEN SOURCE / PROJECTS

Lavoro

ATS Helper

- Chrome extension to better match your resume with the job description. Ranking algorithm to rank keywords in your resume against job description. Built with Vue.js.

Redis

In-memory Database

- Show threading configuration in INFO output [#7446](#) & [#1353](#)

CockroachDB

Distributed SQL Database

- Pow binary operator [[#50143](#)]. DB2 formatted timestamps [[#50011](#)]. Coerce invalid geography [[#50457](#)]

Pino

Low overhead Node.js Logger

- Custom log levels and remove default levels [[#515](#)] . Change log level name [[#503](#)]

gTasker

Chrome Extension

- Create chrome extension to manage day to day tasks while browsing the internet. Performs CRUD operations on Google OAuth2 API and Google Calendar API. This Chrome Extension is published in Google Play Store.

GenoDonor

Genome encoding hackathon

- Worked with 3 other co-workers to create a front-end using React and Node.JS based backend. Create a Web App for sperm donors where users can filter and search for specific genome traits based on donor.

EDUCATION

University of Waterloo

April 2019

Bachelor of Applied Science in Honours Nanotechnology Engineering With Distinction