

ARUN RANGANATHAN

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SUMMARY

- Experience building distributed systems, real-time applications, computer vision applications, android development.
- C++ (Linux & Windows), Python, Java (Android), JavaScript, SQL, Golang, C
- Node, Django, Angular 2, AngularJS, CloudSQL, PostgreSQL, MySQL, RabbitMQ, Redis, Kubernetes, OpenShift, Celery, gRPC, TensorRT, TensorFlow, OpenVINO, OpenCV, NumPy

EDUCATION

University of Waterloo

April 2019

Bachelor of Applied Science in Honours Nanotechnology Engineering With Distinction

EXPERIENCE

Paravision

April 2019 – Present

Computer Vision Engineer

Toronto, ON

- Architect parallel system for face detection on video streams. Reduced IPC bottleneck with MMAP and asynchronous programming, amplifying number of frames processed from 40 fps to 100 fps.
- Create ETL pipeline on Kubernetes on GCP for image datasets. Quadruple throughput for pre-processing images, processed 8 million images per day.
- Configure Openshift platform to host micro-services on bare-metal.
- Engineered RESTful features such as grouping and identities on face recognition.
- Experience building real-time computer vision systems using OpenCV, Tensorflow, and with accelerators such as TensorRT and OpenVINO on Windows and Linux OS.

The League

May 2018 – August 2018

Backend Developer

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.
- Create unit and E2E testing to support integration of micro-services.

The League

January 2018 – April 2018

Android Engineer

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

August 2016 – April 2017

Backend Developer

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

Redis

In-memory Database

- Show threading configuration in INFO output **#7446** & **#1353**

CockroachDB

Distributed SQL Database

- Add support for Pow binary operator for vectorized execution engine **#50143**
- Add ability insert DB2 formatted timestamps **#50011**
- Coerce invalid geography coordinates into geometry **#50457**

Pino

Low overhead Node.js Logger

- Allow custom levels to override default and allow to remove default levels **#515**
- Add ability to change level name when creating the instance **#503**