

# SAI RIJAL

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## OVERVIEW

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Languages: JavaScript, Python, Go, Java, TypeScript, C, C++, C#, SQL, HTML  
Frameworks: Android, NodeJS, Django, Gin/Martini, Vue, Angular, React, Sails, .NET  
Technologies: Docker, Kubernetes, Nginx, MySQL, Postgres, Redis, RabbitMQ, Celery

## EXPERIENCE

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### NVIDIA

*Santa Clara, CA, USA*

#### Web/Database Applications Architect

*Jan – Apr '18*

- Leveraged Go with Gin framework along with MySQL to create an API to automate configuration changes of 10000 server, allowing for rapidly changes to configuration and better utilization of resources.
- Developed a web application leveraging above API to allow delegation of these tasks to other employees.
- Utilized GitLab, Jenkins, Artifactory, Docker, Kubernetes, Rancher, and Kong to build a continuous integration, testing, and continuous delivery pipeline to streamline deployment of other applications

### Vigilant Global, A DRW Company

*Montreal, QC, Canada*

#### Software Developer Intern

*May – Aug '17*

- Developed an application to parse data from switches, FPGAs, and Hypervisors and keep track of their availability, location, status, and connections in a PostgreSQL database.
- Used RabbitMQ and Celery to queue tasks to automatically configure switches/FPGAs and create VMs/Containers for trade execution purposes, saving man hours and capital.
- Moved multiple applications to Docker, improving development and deployment time.
- Explored the possibility of implementing High Availability for applications through Docker Swarm, reducing the possibility of critical applications going offline during trading events

### Shaw Communications

*Calgary, AB, Canada*

#### Computer Science Intern

*Sep – Dec '16*

- Migrated applications to use Docker, improving logging and reducing use of system resources.
- Added scheduling feature to Video-On-Demand management application preventing the need for Shaw operators to come into work at midnight to make VOD menu changes.
- Updated legacy back-end JS code to use ES6 tools such as promises, arrows, and destructuring.

### TD Lab

*Kitchener, ON, Canada*

#### Solutions Developer

*Jan – Apr '16*

- Explored emerging technologies such as HoloLens, Vuforia, and NFC and used the knowledge to develop Android, web, and virtual reality applications with banking uses.

## PROJECTS

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### Get Some Fish

*getsomefish.sairijal.com*

- Web app developed using Flask and Materialize hosted on Google App Engine.
- Allows users to find the right kind of pet fish depending on water qualities like pH and hardness.

### Android Projects

*goo.gl/UpXLuS*

- **Material Compass** | Compass app that employs Material design and filters noise from sensors using Gaussian low pass filters.
- **HexClock** | Android implementation of HexClock by jacobocolo
- **Material Alarm** | Proof of concept of Material design based alarm app. Demo @ *goo.gl/7Uo9tg*.

### Personal Site and Blog [retired]

*legacy.sairijal.com*

- Personal site and blog written in Python and hosted on Google App Engine.

## EDUCATION

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### University of Waterloo

Honours Bachelor of Applied Science, Computer Engineering

*Sep '14 – Apr '19*