

# JANUJAN SELVARATNAM

*A driven problem solver with a passion for connected technologies.*

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## SKILLS

**Programming** Python • C++ • C# • Matlab • SQL • HTML/CSS

**Technologies** Git • Django • Heroku • PostgreSQL • Bootstrap • REST

**Management** Communication • Leadership • Agile

## EXPERIENCE

### System Evaluation Developer

**Peraso Technologies**

Sept 2017 – Dec 2017

Toronto, Canada

- Developed scripts to fully characterize base-band chipset in Matlab
- Tracked thousands of IC parameters to improve product yield by **50%**
- Built GUI to reduce human error during in-house qualification of chipsets
- Worked with DSP team to validate power consumption improvements with updated firmware settings

### RF Engineering Intern

**Peraso Technologies**

January 2017 – April 2017

Toronto, Canada

- Developed and tested driver settings to configure new IC states and transitions for production testing code base
- Created Python tool to normalize datasheet visualization for eval team
- Characterized system level performance of radio IC using Matlab
- Analyzed and updated data across products for data sheet releases

### Embedded Software Developer

**Cognitive Systems Corp.**

May 2016 – Aug 2016

Waterloo, Canada

- Developed driver code to implement frequency offset algorithm in C
- Created test framework to validate algorithm performance using Python
- Designed data visualization tool of carrier frequency offset map using Matlab

### Sensor Design Intern

**BlackBerry Limited**

Sept 2015 – Dec 2015

Waterloo, Canada

- Performed characterization of BlackBerry Radar sensor board for ranging
- Tuned TOF Sensor for optimal performance in various environments
- Developed a C# Desktop Application to interface with sensor board and collect data

## EDUCATION

BASc. Electrical Engineering,  
Honours Co-op

 **University of Waterloo**

2018, Waterloo, Canada

- IOT Processing • Embedded Systems
- OOP • Probability Theory
- Algorithms and Data Structures

## PROJECTS

### NBA MVP Tracker

**Django • PostgreSQL • Heroku**

Dec 2018

Developed a real time web app to display NBA MVP rankings and handle API requests.

### Raksha

**Arduino • C++ • Twilio API**

Jan 2018 – April 2018

Developed firmware for data aggregation and communication with server back-end.

### Lyricize

**Django • NLTK • Genius API**

Jan 2019

Developed a Django web-app to analyze and present song data using NLTK.

### Personal Website

**Bootstrap • HTML/CSS • Javascript**

Dec 2018

Created a personal website using Bootstrap and HTML/CSS.

## EXTRACURRICULARS



### ECE Design Days Volunteer

Mentored first year students at design competition



### Team Member

Intramural basketball at uWaterloo