

# Rafit Jamil

SOFTWARE ENGINEER

## CONTACT

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Website: rafit.me

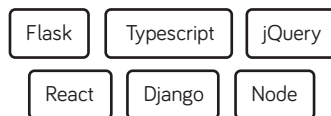
GitHub: github.com/rafit.j

## SKILLS

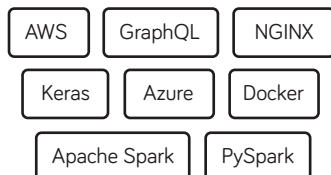
### Languages



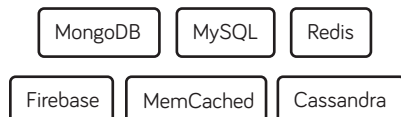
### Frameworks



### Tools



### Databases



## EDUCATION

University of Waterloo

2018 - Present

### Software Engineering, B. SE.

Colonel Hugh Heasley

Engineering Scholarship  
(\$10 000)

President's Scholarship  
of Distinction  
(\$5 000)

## WORK EXPERIENCE

Maple Leaf Sports & Entertainment (MLSE)

May 2019 - August 2019

### Data Scientist

- Engineered millions of frames of player, scouting and event data for Toronto FC and the Toronto Raptors by creating **Python** scripts for **MySQL** and **Azure Data Lake** interactions
- Created algorithms with **Python**, **Matplotlib**, **SciKitLearn** and more to identify and classify line-breaking passes, dribble heat maps and other insightful analytics for coaching staff
- Developed a **Flask** backend, implementing my algorithms with server-side events to stream and process **ADL** data in real-time and visualize it using a **D3.js** frontend server
- Built and trained a connected deep-learning model, an **Auto-Encoding** model that feeds into an **RNN/LSTM** model, using **Keras** to create first-ever match state predictor in MLS, allowing us to use tracking data to predict and classify specific events and complex plays
- Designed **Big-Data** algorithms and models on **Databricks** with **Apache ML** and **PySpark**

The Bliss Company

June 2019 - August 2019

### Full-Stack Developer

- Developed progressive web app for herbal medicine pick-up with 300+ beta users
- Designed and tested responsive frontend with **React**, **Redux** and Material UI
- Introduced **Typescript** for backend REST calls and interactions to improve debugging and readability of code-base
- Used **MongoDB** as primary database with **Algolia API** to optimize search query
- Built **Flask** micro-server for server-side data collection and analytics

Action CIND

July 2016 - August 2018

### Lead Web Developer and Graphic Designer

- Led 8 designers/developers to create and maintain charity website using **Sketch**, **HTML/CSS**, **Bootstrap** and **Javascript**
- Used **PayPal** and **Mail Chimp API** with **MongoDB** and **Node** for donations and mailing-lists

Festive Currents

July 2017 - August 2018

### Multi-Media Developer

- Rebuilt website (18 000 visits/yr) with **HTML/CSS**, **JavaScript**, **Bootstrap** and **jQuery**
- Built interactive, multi-player games such as Simon-Says, Bingo, Connect Four and more with **Socket.IO** with **Node** and **OpenCV** with **Flask** for 300+ children at opening festival

## PROJECTS

Density

May 2019

### Population Density Wifi-Tracking - RU Hacks Winner

- Programmed Arduinos to collect wifi-packets and triangulate people positions with **C++**
- Built a **Node.js** and **React** app to show real-time population density heatmaps and analytics

FrameAR

June 2019

### 3D AR Version Control System - ENG Hacks Winner

- Created a custom version-control backend with **MongoDB**, **SpringBoot**, **JS** and **Slack API**
- Developed a **Swift** app with **AR-Kit** to visualize models, commit differences and comments

Gaze

August 2019

### Real Time Gaze Tracking and Analytics

- Designed a gaze tracking algorithm through ML and pupil tracking in **Python** and **OpenCV**
- Analyzed user-gaze on online adverts using a **Flask** server with **Cassandra** and **Keras**