

Rafit Jamil

Software Engineer, University of Waterloo

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Skills

Languages | Python, Go, JavaScript, C++, PHP, C, SQL, HTML/CSS

Technologies | Node.js, React, TypeScript, Django, Flask, AWS, MongoDB, Redis, GraphQL, Docker, TensorFlow, Git

Education

University of Waterloo | Bachelor of Software Engineering (B.SE)

September 2018 - Present

Minor: Artificial Intelligence, GPA: 3.7/4.0

Work Experience

Software Engineering Intern | Setter

January 2020 - Present

Toronto, ON

- Working in an agile environment with Node and React/Redux in TypeScript as a member of Core-Operations team.
- Developed multi-threaded communication API with GraphQL, TypeORM and Apollo Client to centralize customer support, **improving user satisfaction by 47% and retention by 14%**.
- Led full-stack integration of Knex.js, Cloud SQL and Elasticsearch for robust search queries across applications.
- Automated job scheduling in coordination tools to **cut average sales cycle from 156 hours to under 48 hours**.
- Built, tested and integrated components for team's React-UI Library, accelerating frontend development speed.

Software Engineering Intern | Maple Leaf Sports - Toronto FC + Toronto Raptors

May 2019 - Aug 2019

Toronto, ON

- Implemented the **first advanced tactical play predictor in the MLS and NBA**, creating a CNN-LSTM model trained on game Big Data with an 89% classification accuracy using Python, Apache ML, PySpark and TensorFlow.
- Created scouting API in Django, D3, Keras and MySQL, to predict player statistics and rookie draft probabilities.
- Introduced Azure Cloud Functions and server-side events to Flask API, **reducing data-streaming latency by 73%**.
- Built robust data-processing pipelines with Python, SQL and Azure to streamline analysis of 3 TB of game data.

Software Engineer | The Bliss Company

May 2019 - December 2019

Toronto, ON

- Cofounded start-up and developed PWA (Android/iOS), drawing **\$20 000 in seed funding** and **300+ beta users**.
- Engineered backend REST API in Node and Express, implementing secure JWTs, Firebase Auth and MongoDB ORM.
- Designed frontend rewards system, checkout flow, shops map and product search in TypeScript, React and RxJS.

Projects

Traffic | A.I. Driven Autonomous Car Network

[Delta Hacks 2020 API Winner]

Node, JavaScript, C#, Unity, React (Native), MongoDB

- Trained a genetic AI algorithm in Node for vehicles to avoid collisions, generate routes and maximize traffic flow.
- Simulated vehicle network in Unity and C# using optimal genetic traits and concurrent channel communication.

Density | Population Density Wi-Fi Triangulation

[Ryerson Hacks 2019 3rd Place]

C++, Arduino, Node, React, JavaScript

- Programmed Wi-Fi micro-chip mesh-network in C++ to passively triangulate Wi-Fi devices within 0.5m certainty.
- Demoed API made with Node and React to project live heatmaps and analytics of population within the network.

Frame AR | CAD AR Version Control System

[ENG Hacks 2019 1st Place]

Swift, Node, React, TypeScript, MongoDB, Slack API

- Developed complete browser VCS for CAD projects with auto-file conversion using Node, MongoDB and React.
- Built iOS app with Swift and AR Kit to fetch project, render branches/commits and compute 3D mesh differences.