Rafit Jamil

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🗂 Skills

Languages | Python, Go, C++, JavaScript, C, Swift, SQL, HTML, CSS

Technologies | Node, React, Flask, Django, TypeScript, PySpark, MongoDB, Firebase, Redis, AWS, Azure, Docker, Git

💼 Work Experience

Data Science Intern | Maple Leaf Sports - Toronto FC & Toronto Raptors
May 2019 – August 2019

- Researched, pitched and implemented solution to use player tracking data to identify tactical plays using a **CNN-LSTM model** trained on **Big-Data** with **Apache ML, PySpark** and **TensorFlow**. Model was adopted as *first advanced play predictor* in the MLS and NBA, labelling plays with **89% classification accuracy**.
- Architected scouting model with **Python**, **Keras** and **Jupyter**; predicting player statistics and rookie draft probability with **0.0295 mean squared error**.
- **Reduced data-streaming latency by 350%** on **Flask API** using **Azure Cloud Functions** and server-side events.
- Tuned autoencoder with Bayesian optimization, **decreasing logarithmic loss by 27%** and **halving training time**.
- Learned to engineer terabytes of Big Data, building robust data processing pipelines in **Python, SQL** and **Azure**.

Full Stack Developer | The Bliss Company
May 2019 – August 2019

- Collaborated to develop and ship progressive web-app, directly **resulting in $2 million in capital investment**.
- Implemented user-token authentication and managed data storage using **MongoDB**, **Redis** and **Firebase**.
- Designed frontend rewards system, checkout, shops map and product search in **TypeScript**, **React** and **RxJS**.
- Prototyped **Flask** micro-server for server-side data collection and customer trend analytics for **300 beta users**.

Web Developer | Festive Currents
July 2018 – September 2018

- Integrated secure product purchasing and mail-subscriptions on website using **PayPal API**, **Mail Chimp**, **MongoDB** and **Node**, successfully **collecting $42 000+ and 560 subscribers**.
- Led 8 developers in remaking webpage with **HTML/CSS**, **JavaScript** and **jQuery**; gaining **18,000+** yearly visits.
- Built interactive, multi-player kid's games using **Socket.IO** with **Node** and **OpenCV** with **Flask** for **300+** guests.

💡 Projects

Density | Population Density Wi-Fi Triangulation
C++, Arduino, Node, React | **RU Hacks Winner**

- Programmed Wi-Fi chip mesh-network in **C++** to passively triangulate Wi-Fi devices with **0.5m certainty**.
- Developed web app with **Node** and **React** to feed TCP data through web-sockets for live population heatmaps.

Frame AR | CAD AR Version Control System
Swift, Node, React, MongoDB, SpringBoot, Slack API | **ENG Hacks Winner**

- Developed a browser version-control API customized for 3D CAD files with **MongoDB**, **Node** and **React**.
- Designed **Swift** iOS app with **AR-Kit** to visualize repository 3D models, commit differences and comments.

Gaze | Real-Time Gaze Tracking and Analytics
Python, OpenCV, Flask, Keras, Cassandra, jQuery

- Devised multi-user, pupil detection algorithm via **Python** and **OpenCV** for **150 degree**, **60fps** gaze tracking.
- Modeled **Flask** app with **Cassandra** and **Keras** to analyze real-time user-gaze on commercials and adverts.

Others: Pseudo, Realm, Sentiment Gradient Trees, Eleos, Echo, Fashionably, Zenith

🎓 Education

University of Waterloo | Bachelor of Software Engineering (B.SE)
September 2018 - Present