Fuad Ali

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Experience

Software Engineer Intern - Distributed Systems 🏢 Tesla 📍 Palo Alto, California Jan - April 2020
- Building key components for battery simulators, microgram dispatch modelling, and algorithmic energy trading
- Writing highly scalable and performant code to coordinate energy transfers across 3 continents
- Working with functional programming in **Scala**, with concurrency models in **Akka** and **Kafka**

Software Engineer Intern 🏢 Wealthsimple 📍 Toronto Sept 2019 - Dec 2019
- Developed backend to **increase speed** and **reliability** of deposits and withdrawals using **Ruby on Rails**
- Implemented filtering algorithm in Java to sort and visualize transactions between financial institutions

Data Scientist Intern 🏢 Office of the Director of National Intelligence 📍 Washington, DC Aug 2019 - Apr 2020
- Researching **data compression techniques** for high-volume, encrypted DNA data

Software Development Engineer Intern 🏢 Publicis Sapient 📍 Toronto June - Aug 2019
- Developed a **machine learning** powered chatbot by employing K-Means Clustering on click-stream data
- Coded responsive, location based front-end component seen by **1.5 million** users
- Analyzed the performance of $500 million+ eCommerce site to identify bottlenecks, resulting in faster load times

Software Engineer Intern 🏢 Pickup Rideshare 📍 Hamilton Apr - Aug 2018
- Architected a **matching algorithm** (Gale-Shapley) to match riders with available drivers
- Engineered a progressive web app using **React**, redesigned the home page to increase customer retention by **20%**

Multi-Organ Transplant Researcher 🏢 Toronto General Hospital 📍 Toronto May - Aug 2017
- Developed a **machine learning algorithm** in Python that uses **support vector machines** to classify liver disease, resulting in early diagnosis without biopsy or invasive procedures, using a dataset of eleven **clinical features**
- Trained and **validated** machine learning models by normalizing and cleaning patient data
- **First author** on Meta-Analysis published in the Canadian Liver Journal **bit.ly/nashgen**

Education

B.Eng, Electrical & Biomedical Engineering (Co-op) 📍 McMaster University Expected Apr 2021
- **Deans Honor List** (2016-2018), Honors Entrance Scholarship (**$2000**), **3.4/4.0** GPA
- Relevant courses: **Data Structures and Algorithms**, Discrete Math, Statistics, Vector Calculus, Molecular Biology

Skills

Languages: Python, Java, C, C++, JavaScript, Swift, MATLAB, Assembly, HTML/CSS, SQL
Tools and Frameworks: Pandas, Bootstrap, TensorFlow, React, Firebase, Node.JS, Android Studio, Git/Version Control

Projects

Unmask 🏢 Personal Project Aug 2019
- Developed a computer vision application using Ruby on Rails to analyze media sentiment based on pictures of faces
- Trained a **facial recognition model** using **OpenCV** on Amazon Web Services and deployed on the cloud

Strive 🏢 MedHacks bit.ly/striveJHU Sept 2018
- **2nd of 200+** teams at MedHacks, Johns Hopkins University
- Utilized computer vision (**Google Vision API**) to extract nutritional info from user uploaded pictures of food, allowing users to track their calories in a virtual food diary