

# Sarim Zafar

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## Skills

- Java, Ruby, JavaScript, Python, C++, C, C#, MATLAB, HTML, CSS, MySQL, PostgreSQL
- Ruby on Rails, React-Redux, Enzyme, Scikit-learn, NodeJS, Angular, Mocha, .NET MVC
- Experience working in an agile environment with tools such as Git, BitBucket, JIRA and Jenkins

## Professional Experience

**Think Research Corp.** — Software Engineering Intern - Platform Team Toronto, Fall 2016

- Rewrote application front-end in a test-driven manner using React-Redux and Enzyme
- Decomposed a single monolith Rails application into resilient microservices to improve performance
- Self started and managed a Machine Learning prototype for patient identification using Scikit-learn in Python

**Deloitte Innovation Lab** — Software Product Prototyper, Deloitte Communitech Space Kitchener, Winter 2016

- Prototyped and developed a real-time web application using the MEAN stack, MySQL, WebSockets
- Built a personalized Slack bot using Botkit and Rails API to conduct automated employee surveys

**BDO Solutions** — Software Engineering Intern Mississauga, Summer 2015

- Successfully developed a real-time error tracking system for Bell Canada using C# and JavaScript
- Migrated an enterprise application using Microsoft BizTalk 2013 improving performance efficiency by 35%

**Systemgroup Consulting Inc.** — Full Stack Engineering Intern Mississauga, Fall 2014

- Successfully built an MVC based .NET web application used for processing mining data using C# and MS-SQL
- Designed and developed the User Interface of a web application using HTML, CSS and jQuery

**RBC Global Technology and Operations** — Quality Assurance Co-op Toronto, Winter 2014

- Conducted independent testing of a major sales application and discovered over 75 defects

## Projects

Patient Identification System Fall 2016

- Designed and implemented a machine learning model to identify patients based on physical features
- Used the random forest classifier algorithm to achieve an accuracy of 88.9%

FatBot — Hack the North 2016 Fall 2016

- Built a Facebook Messenger Bot that automates the process of diet-tracking using Natural Language Processing
- Awarded the Best Hack by Bloomberg L.P and Runner-up for the Google Cloud API Prize out of 60 projects

RetrospectIQ Winter 2016

- Developed a multi-platform web application that assists agile coaches in better assessing team transitions
- Built the application using Node and maintained real-time data flow using Socket.IO and Angular.JS

## Research and Teaching

Undergraduate Research Assistant - Video Processing Lab University of Waterloo, Winter 2017

- Currently working under [Prof. Zhou Wang](#) on video processing and encoding algorithms
- Responsible for building a web tool that rates the user's video viewing experience using complex algorithms

Five-time Teaching Assistant ([WEEF-TA](#)) Waterloo, 2015 – 2016

- Performed academic tutoring in Data Structures and Algorithms, Calculus and Circuits

## Education and MOOC

University of Waterloo Candidate for Bachelor of Mechatronics Engineering Graduating 2018

- Third year student with a GPA of 3.6 and minor in Cognitive Science

Introduction to Machine Learning Udacity

- Applied K-means clustering to an online dataset consisting of emails to find fraudulent user patterns