MUHAMMAD **REHMAN**

3A Applied Mathematics and Combinatorics

m9rehman
muhammadrm
m9rehman@uwaterloo.ca
mrehman.me
519.741.7860

SKILLSET

Technologies and Frameworks

Web
NodeJS, Rails, Redis, React, Redux, MySQL, Docker

Infrastructure
AWS, Spark, Kafka, HDFS, ElasticSearch

Data Science

Tensorflow, Scikit-Learn, Numpy, Pandas, Scrapy, D3, PySpark, Jupyter

Languages

Python, Ruby, Java, JavaScript, Bash

EDUCATION

University of Waterloo

Candidate for Bachelor of Mathematics

Applied Mathematics and Combinatorics

Expected May 2019

COURSEWORK

Undergraduate

Computational Mathematics
Intro to Combinatorics
Graph Theory
Inferential Statistics

Online
Data Structures & Algorithms
Deep Learning

WORK EXPERIENCE

Vidyard
May 2017 - Present
Software Engineering Intern

- Software Engineering intern on the **Integrations** and **Analytics** team
- Responsible for building data pipelines using **AWS Kinesis Firehose**, **Apache Kafka** and **Rails** and refining analytics platform using **Apache Spark** and **ElasticSearch**

Medella Health
May 2016 - August 2016
Software Engineering Intern

- Developed an **Android** application to interface with the glucose sensor built by Medella using **NFC** for glucose monitoring of diabetic patients
- Implemented web scrapers in **Python** to scrape VSP and OptoCanada to obtain data of over **20,000** clinics and clinicians
- Led development of web application using **VueJS, Node & Websockets** for clinicians to interface with the osmolarity sensor by Medella
- Built a data visualization tool for progress tracking on projects and identifying time sinks to improve efficiency of employee workflow
- Deployed an email forwarding server using **Node** and a real-time database using **Firebase** to obtain real time glucose measurements

New York Institute of Technology
May 2015 - August 2015
Mobile Application Developer

- Designed and implemented an **iOS** application for NYIT to allow students to access student portal through a mobile app
- Collaborated in designing a course scheduling and appointment booking algorithm within the **iOS** application
- Implemented a **Node** server that pushes appointment updates to the **React** web client and sends SMS notifications to students regarding their appointment details

PROJECTS

ArbitrageBot
May 2017 - Present
Automated data analytics bot

- A data analytics project built to determine areas of arbitrage on e-commerce platforms such as Kijiji
- Built using **Scikit-learn, React, D3, AWS**

AlgoTrader
February 2017 - Present
Algorithmic Trading project

- An algorithmic trading platform that predicts natural gas prices on the NYMEX index using **recurrent neural networks** and **stochastic modelling**
- Built using **TensorFlow, Spark, Pandas**

Trackr
October 2016
Progress Tracking web application

- A web application that allows users to track and enhance their progress in different skills through visualizations, progress breakdowns and reminders
- Built using **React, Node, Postgresql**, **D3**

HelpFall
February 2016
DeltaHacks Project - Top 5 Finalist

- An **iOS** application built to detect epileptic seizures and request dispatch of emergency medical responder and emergency contacts
- Built using **CoreMotion, CoreLocation, Twilio, Firebase**