### TOBY **OGHRE**

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### **TECHNICAL SKILLS**

- Java
  - Python/scikit-learn
- C#/.NET

- Git
- Apache Kafka
- Xamarin

- Elastic Search
- Postman
- Android Studio

### **EDUCATION**

## BACHELOR OF COMPUTER SCIENCE HONOURS (CO-OP) UNIVERSITY OF MANITOBA

- Specialization: Artificial Intelligence
- GPA: 3.9/4.5
- Undergraduate Research Award 2018, 2019
- Dev club Director of Communications 2019
- Deans honors list 2016 present

#### **WORK EXPERIENCE**

# APPLICATION DEVELOPER (CO-OP WORK TERM 3) NICHE TECHNOLOGY, WINNIPEG, MB

MAY 2020 - PRESENT

SEPT 2015 - PRESENT

**Expected graduation: DEC 2020** 

- Working on customizing NicheRMS application features to specific customers based on their requests using C++ and C# programming languages
- Converted platform dependent functions to cross platform functions using Xamarin and C#
- Improved application efficiency by creating a search component on the application to allow faster access to records

## COGNITIVE ANALYTICS DEVELOPER (CO-OP WORK TERM 2) BLACKBERRY, WATERLOO, ON

**SEPT 2019 – DEC 2019** 

- Spearheaded research into the introduction of Apache Kafka into a production pipeline using the Elastic Stack to increase fault tolerance and reliability
- Automated the intake and processing of log files using Python, Elastic search and Filebeats
- Cleaned logs using Regex and Python to prepare these logs for use in machine learning model

### STUDENT RESEARCHER, DATABASES AND DATA MINING LAB UNIVERSITY OF MANITOBA. SUPERVISOR: DR CARSON LEUNG

**MAY 2019 – AUGUST 2019** 

 Developed a program to perform frequent pattern mining on Toronto's bus delay Data (found here <a href="https://open.toronto.ca/dataset/ttc-bus-delay-data/">https://open.toronto.ca/dataset/ttc-bus-delay-data/</a>) to prepare data for use in machine learning model.

- Implemented machine learning algorithms in Python (decision trees, random forest and KNN) to compare and enhance the predictive performance of an intelligent system that predicts how late a bus will be using historic data which improved accuracy by 10%
- Optimized the machine learning models with hyper parameter tuning and one-hot encoding to improve the performance of the models

## SOFTWARE DEVELOPER (CO-OP WORK TERM 1) IQMETRIX, WINNIPEG, MB

**JAN - APRIL 2019** 

- Created an API in C# .NET to customize the backend of a large scale retail management system to clients specifications
- Set up a monitoring system with Application Insights to monitor the health of the retail management system above
- Performed continuous integration testing using Postman to ensure code quality

### **PROJECTS**

### **SCHEDULE-ME-UP (Software Engineering 2 project):**

http://schedule-me-up.surge.sh/

- A cross platform application that allows users to easily schedule times for meeting
- Wrote server-side code in Node.js to create the routers and controller for our models

### **FITLOG (Software Engineering 1 project):**

- An android app that enables individuals to plan and track their physical activity from anywhere
- Created a step counter feature in the application using android sensors

### **UMCOURSES (Human Computer Interaction project):**

- A high-fidelity prototype of a course registration system built using Javascript, HTML and CSS
- Provided improvements on University of Manitoba's current course registration system Aurora