

MSc Statistics · Data Science

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## Summary\_

Master's in Statistics (Machine Learning Concentration) student at Brock University. Executive for the student run Brock University Artificial Intelligence Club. Teaching assistant for Applied Calculus & Programming with Mathematics. Brock University 2019 Co-op Student of the Year. Graduate of Bachelor of Science (Honours), Mathematics and Statistics Co-op, Business minor. Previous data science internship experience in finance, government and sports analytics. Technical Skills include, Python, R, Power BI, Tableau, SQL, Git, SAS, Microsoft Azure, Microsoft Excel.

## **Education**

#### **MSc Statistics (Machine Learning Concentration)**

St. Catharines, ON

BROCK UNIVERSITY

Jan 2020 - Apr 2021

- Teaching Assistant for Applied Calculus & Mathematics Integrated with Computers and Applications.
- Recipient of \$12,000 research grant from Canada Summer Games Committee for undergraduate thesis project highlighted below.

#### BSc (Hons) Mathematics & Statistics Co-op, Business Minor

St. Catharines, ON Sep 2015 - Dec 2019

**BROCK UNIVERSITY** 

• 3rd & 4th year cumulative GPA of 89% (3.77/4), overall cumulative GPA of 84.5% (3.61/4).

- Recipient of the Brock University 2019 Co-op Student of the Year award. Nominee for the 2019 Ontario Co-op Student of the Year.
- Honour Roll & Dean's List Recipient in each year of study, identified as top 15% in the faculty.

## Experience \_\_\_\_

Royal Bank of Canada Toronto, ON

DATA ANALYST

May 2019 - Aug 2019

- Developed a PoC created in Python to screen high-risk Individuals based on AML regulations, the program will be put into production to replace \$100,000+ per year outsourced model; reduced the possibility of false negatives by nearly 12%, while eliminating 7% of existing false positives.
- Developed a list integrity program using Python & SQL, to automatically compare individuals on sanctions lists with the RBC AML database to ensure accurate records; project estimated by IT department to cost \$400,000 if not developed within department.
- · Presented projects to Chief Anti Money Laundering Officer, Head of AML RBC Europe and Asia, SVP & VP.

### **Canadian Tire Financial Services**

Oakville, ON

Data Analyst

Sep 2018 - Dec 2018

- Created SQL queries written in SAS to add new variables to a logistic regression model calculating the probability of an athlete to place on the podium at a major event, resulting in a 10% increase in the performance metric.
- Created an automated data pipeline process for the Canadian Olympic Bobsleigh Team, by using Python for web scraping, SAS for data manipulation and statistical modelling, and Tableau reports for data visualization, processing GPS data acquired 100 times per second.
- Optimized SAS code written by senior analysts to effectively reduce run time.
- · Automated and scraped world diving & short track speed skating websites using Python and the BeautifulSoup library.

#### **Ontario Ministry of Transportation**

St. Catharines, ON

DATA SCIENTIST

May 2018 - Aug 2018

- Created a two-class boosted decision tree machine learning model using feature engineering to increase the accuracy of the OPS Fleet Vehicle cancellation model by greater than 20%, which was equivalent to \$1.33 million over 3 years.
- Created an anomaly detection machine learning model using Microsoft Azure Machine Learning Studio and dashboards using PowerBI to analyze pass/fail patterns and flag abnormal activity within Ontario Drivers Test Centres.
- Followed an agile, iterative data science methodology (Team Data Science Process).
- Received a perfect score on employer evaluation, rating attributes including, technical & professional knowledge, & leadership competencies.

# **Projects**

#### Using Machine Learning to Predict Professional Golf Performance (GitHub) (Kaggle)

Undergraduate Thesis

- Created an end-to-end data science project involving web scraping, data manipulation, exploratory data analysis, model training, model optimization, model evaluation and predictive modelling.
- Utilized Python and the Beautiful Soup library to scrape statistics recorded on the PGA Tour (9,250+ Kaggle downloads, #1 trending data set).
- Trained & optimized Lasso, Ridge & XGBoost Regression models, as well as Logistic Regression, Decision Tree & XGBoost Classification models using Python (scikit-learn, Pandas) to create predictive models.

#### Official World Golf Ranking Database (GitHub) (Kaggle)

PERSONAL

• Utilized Python and the BeautifulSoup library for weekly collection of data from the Official World Golf Ranking website dating back to 1985.