# Brad Klassen

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LinkedIn | GitHub | Kaggle | Twitter

## EDUCATION

### BROCK UNIVERSITY
MSc Statistics
Apr 2021 | St. Catharines, ON, CA

### BROCK UNIVERSITY
BSc Mathematics & Statistics
Dec 2019 | St. Catharines, ON, CA
Business Minor
Co-op Distinction
Cum. GPA: 3.61 / 4
Major GPA Class Rank: 1st

## PROJECTS

Predicting PGA Tour Performance
(GitHub)(Kaggle)
• Optimized Lasso, Ridge & XGBoost Regression models, as well as Logistic Regression, Decision Tree & XGBoost Classification models using Python.
• Utilized Python and BeautifulSoup to scrape statistics (50 million rows) recorded on the PGA Tour (#1 trending data set out of 25,000).

Predicting NHL Player Salaries
(GitHub)(Kaggle)
• Optimized LASSO, ridge, decision tree, kernel smoothing & XGBoost regression models in R to create predictive models.

Professional Golf Database (Kaggle)
• Utilized Python & BeautifulSoup to create 5 web-scraping programs.

## SKILLS

### TECHNICAL
• Python • R • SQL • Power BI
• Git • SAS • LATEX• Tableau
• MS Excel • MS Azure

### TEACHING ASSISTANT
• Applied Calculus
• Programming with Mathematics

## EXTRACURRICULAR

• Brock University Artificial Intelligence Network - Executive

• RBC FutureMakers - Event Assistant

• Federated Health Charities - Event Assistant

## EXPERIENCE

### ROYAL BANK OF CANADA | Data Analyst
May – Aug 2019 | Anti-Money Laundering Insights & Analytics | Toronto, ON
• Developed a PoC created in Python to screen high-risk Individuals based on AML regulations, replaced $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 | Data Analyst
Sept – Dec 2018 | Sports Analytics | Oakville, ON
• Created SQL queries written in SAS to add new inputs 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 adjusted R-squared.
• Created an automated data pipeline process for the Canadian Olympic Bobsleigh Team, using Python for web scraping, SAS for data manipulation and statistical modelling, and Tableau for data visualization, processing GPS data acquired 100 times per second.
• Developed web scraping programs for the world diving & short track speed skating websites using Python and the BeautifulSoup library.

### ONTARIO MINISTRY OF TRANSPORTATION | Data Scientist
May 2018 – Aug 2018 | Internal Consulting | St. Catharines, ON
• Utilized boosted tree-methods and feature engineering to increase accuracy of OPS Fleet Vehicle cancellation model by greater than 20%, equivalent to savings of $1.33 million over 3 years.
• Created an anomaly detection model and Power BI dashboards to analyze pass/fail patterns within Ontario Drivers Test Centres.
• Utilized Microsoft Azure Blob Storage to link Ontario Control Survey Information System large images to Power BI dashboard.

## RESEARCH

### BROCK UNIVERSITY | Machine Learning Research Assistant
Jan 2020 - Present | St. Catharines, ON, CAN
Worked with Dr. William Marshall researching gradient boosting methods applied to ranking problems. Received $12,000 research grant from Canada Summer Games.

## AWARDS

| Year | Level | Award |
|---|---|---|
| 2019 | 1/43,000 | Ontario Co-op Student of the Year |
| 2019 | University | Highest Major Average in Department for Graduating Class |
| 2020 | Provincial | Ontario Graduate Scholarship ($15,000) |
| 2020 | National | Canada Summer Games Research Grant ($12,000) |
| 2020 | University | Art Bicknell Graduate Scholarship in Mathematics ($2,800) |
| 2019 | 1/3,000 | Brock University Co-op Student of the Year |
| 2020 | University | Dean of Graduate Studies Research Fellowship ($5,000) |