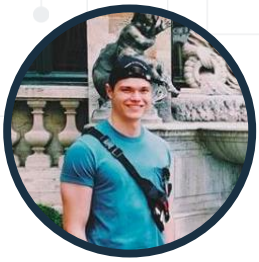
# Cameron Porteous

## Junior Data Scientist

Leveraging math and statistics with computation to solve problems, find patterns, and tell stories.

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## WORK EXPERIENCE

### Junior Data Science Intern

PWO Canada Inc.

*07/2019 – Present* *Kitchener, ON, Canada*

*Automotive Manufacturing Plant*

- Developed small-scale Python ETL utilities to wrangle data for downstream analysis and visualization
- Created user-friendly BI dashboards using Tableau and presented key insights to production managers
- Increased monthly profit by $110,000 immediately after providing welding specialists with data visualization tools to track KPI's and identify steel defect patterns
- Implemented data aggregation scripts to generate dynamic financial reports from a transaction database
- Generated short-term and long-term forecasts for shop-floor employee demand levels based on future shop orders

## EDUCATION

### Bachelor of Mathematics; Honours Statistics, Honours Actuarial Science with Finance Option (Double Major)

University of Waterloo

*09/2014 – 04/2019* *Waterloo, ON, Canada*

- Statistical Forecasting
- Quantitative Enterprise Risk Management
- Mathematics of Financial Markets
- Mathematical Statistics
- Computer Simulation of Complex Systems
- Object Oriented Software Development

## CLUBS

UW Data Science Club (10/2018 – Present)

UW Intramural Volleyball - Elite (01/2015 – 12/2018)

## ACTUARIAL EXAMINATIONS (SOA)

EXAM P - Probability (09/2016)

*Society of Actuaries*

- Score: 9/10

EXAM FM - Financial Mathematics (08/2017)

*Society of Actuaries*

- Score: 10/10

## PROGRAMMING LANGUAGES

Python | R | C++ | Java | SQL

## ANALYTICS & FRAMEWORKS

Pandas | NumPy | SciPy | Scikit-learn | Seaborn | Tableau | Google Cloud Platform | RStudio | Git | Flask

## PROJECTS & COMPETITIONS

Scrabby - Scrabble Solver WebApp (09/2019)

- High performance word engine built in Python to identify optimal word plays given a set of letter tiles
- Employs a mix of combinatorial and frequency-based solving methods to ensure minimal runtime complexity
- Powered by Flask and Jinja; deployed using Heroku

Titanic: Machine Learning from Disaster - Kaggle Competition (10/2019)

- Predicted survival outcomes of RMS Titanic passengers with 81.3% accuracy; scored in the top 4% on the Kaggle leaderboard
- Employed sophisticated imputation strategies and feature engineering to significantly augment prediction accuracy
- Used grid search with cross validation to tune hyper-parameters for several classification MLA's (XGB, SVC RBF, etc.) and used an ensemble voting model to generate final predictions

House Prices: Advanced Regression Techniques - Kaggle Competition (09/2019)

- Predicted sale prices of homes located in Ames, Iowa given 79 explanatory features; scored in the top 7% on the Kaggle leaderboard with an RMSLE of 0.115
- Applied robust scaling transformations to numerical features to reduce skewness of predictors
- Tuned hyper-parameters for four MLA's (XGB, ElasticNet, Ridge, Lasso) and used a blending ensemble model to create predictions

## MEDIUM PUBLICATION

Cracking an 82-year-old stock trading board game using Monte Carlo simulation (08/2019)

*Used MC simulation in Python to determine optimal strategies for the board game Stock Ticker. Article was selected by Medium curators for the Machine Learning and Data Science categories and subsequently published on Towards Data Science.*

## SPARE TIME

Section Hiking | Travel | NBA | Index Investing