

Cameron Porteous

Junior Data Scientist

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



cjporteo@uwaterloo.ca

226.600.8775

Waterloo, ON, Canada

kaggle.com/cjporteo

linkedin.com/in/cjporteo

github.com/cjporteo

medium.com/@cjporteo

WORK EXPERIENCE

Junior Data Science Intern

PWO Canada Inc.

07/2019 – Present

Kitchener, ON, Canada

Automotive Assembly 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

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|-------------------------------------------|------------------------------------------|
| • Statistical Forecasting | • Mathematical Statistics |
| • Quantitative Enterprise Risk Management | • Computer Simulation of Complex Systems |
| • Mathematics of Financial Markets | • 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

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 MLAs (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 MLAs (XGB, ElasticNet, Ridge, Lasso) and used a blending ensemble model to create predictions

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

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 in the Machine Learning and Data Science categories and subsequently published on Towards Data Science.

INTERESTS

Section Hiking

Dogs

NBA

Weight Training