

# Cameron Porteous

## Data Scientist

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



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## WORK EXPERIENCE

### Data Analyst

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
- Generated short-term and long-term forecasts for shop-floor employee demand levels based on future shop orders
- Implemented data aggregation scripts to generate dynamic financial reports from a transaction database, vastly improving productivity within the controlling department

## PROJECTS

NBA All-Star Predictor (01/2020) [↗](#)

- Applied gradient boosted tree models to NBA datasets, classifying NBA All-Stars with an F1 Score of 81.2%
- Correctly predicted 22/24 players for the 2020 NBA All-Star Game
- Published in Towards Data Science/The Startup as a two-part series

S&P 500 Deep Learning Price Action Classifier (04/2020) [↗](#)

- Investigated potential predictive factors for one-day price movements of the SPX market index, including technical dark pool indicators and CBOE options data
- Constructed an LSTM recurrent neural network in Keras to classify buy/sell/hold signals with validation accuracy of 45-50%

@thoughtfulAi (05/2020) [↗](#)

- Generates inspirational quotes using a transformer-based language model (GPT-2) and posts them to Twitter
- Model has been adapted and finetuned to a custom dataset containing over 3000 high-quality quotes from various authors
- Deployed on GCP Compute Engine; creates a new post every 8 hours, complete with a high-res backdrop using the Unsplash API

ScrabbleSpy (10/2019) [↗](#)

- 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, given input length
- Deployed using Flask and hosted on Heroku

## COMPETITIVE PROGRAMMING

Current LeetCode Contest Rating: 1856 [↗](#)

Top 4% globally

## SKILLS

Python

Jupyter Notebook

R

MySQL

Git

Linux

Data Structures & Algorithms

## ANALYTICS & FRAMEWORKS

Pandas

NumPy

TensorFlow

Keras

Matplotlib

Seaborn

BeautifulSoup

Selenium

Flask

Docker

GCP

Tableau

## 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 (10/2017 – 04/2019)

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

## PROFESSIONAL DEVELOPMENT

Neural Networks and Deep Learning - Coursera  
(06/2020 – Present) [↗](#)

Coursera Specialization offered by deeplearning.ai to develop skills in artificial neural networks, deep learning, and backpropagation