# **Cameron Porteous**

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## Languages & Aptitudes

Python (Pandas, NumPy, Keras, TensorFlow, Flask, Matplotlib, Seaborn) • R • SQL • Jupyter

Web Scraping (BeautifulSoup, Selenium) • Linux Shell • Tableau • Git • GCP

# **Technical Skills**

Regression (Linear, Lasso, Ridge, Elastic Net, SVR) • Classification (Logistic, K-NN, SVM, Naive Bayes, RF, XGBoost)

Clustering (K-Means) • Deep Learning (CNN, RNN, LSTM, GPT-2) • Monte Carlo Simulation

**Hyperparameter Tuning** • **Model Interpretation** (SHAP Analysis, Partial Dependency)

## **Professional Experience**

07/2019 – 10/2020 Kitchener, ON

Data Analyst, PWO Canada Inc. 2

- Developed Python ETL scripts with Pandas to wrangle data for downstream analysis and visualization
- Created comprehensive BI dashboards using Tableau and presented key insights to stakeholders
- Increased monthly profit by \$110,000 immediately after providing welding specialists with data visualization tools to track KPI's and identify operational inefficiencies
- Forecasted monthly labour demand levels using linear regression models, reducing cash burn by over 10%
- Composed data aggregation scripts in Python and SQL to generate reports from a transaction database, vastly improving productivity within the controlling department
- Used matplotlib (Python) to create tailored KDE plots to provide management with statistical guidance during regulatory safety audits

# **Education**

09/2014 – 04/2019 Waterloo, ON

University of Waterloo,

Bachelor of Mathematics: Statistics, Actuarial Science (Finance Option) 🛮

#### **Machine Learning Projects**

2020

NBA All-Star Predictor, (Python, Pandas, XGBoost, SHAP) ☑

- Applied gradient boosted tree models to web-scraped 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 (Medium publication) as a two-part series 🗷

2020

**S&P 500 Deep Learning Price Action Classifier, (Keras, LSTM)** \( \text{\texts} \)

- 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%

2020

@thoughtfulAi, (Python, SQLite, GPT-2, TensorFlow, Transfer Learning, GCP)

- Generates inspirational quotes using a transformer-based language model (GPT-2) and posts them to Twitter  $\ \ \, \Box$
- Model has been adapted and finetuned to a custom dataset containing over 3000 highquality 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

## **Competitive Programming**

#### Current LeetCode Contest Rating: 1856, Top 4% Globally

- Authored detailed solution articles for various algorithmic programming problems, totalling over 300 upvotes 🗷
- Started coding-related YouTube channel 2 to share and thoroughly explain thought process for different questions