

Technical Skills

Languages: Python, R, SQL, SAS, VBA, Java, JavaScript, C, HTML, CSS

Frameworks: Spark, PostgreSQL, Tableau, Pandas, Matplotlib, Scikit-Learn, TensorFlow, Keras, Caret, Bootstrap

Work Experience

PricewaterhouseCoopers Canada

Associate – Forensic Accounting

Toronto, Canada

May 2019 – Dec 2019

- Provided statistical analysis and management strategy guidance for various consulting projects using Tableau and SQL
- Revised client settlement in purchase of competitor's inventory, saving over \$2 million by discovering inconsistencies in outdated product and projecting historic purchases and sales from PostgreSQL DB into Tableau
- Built service for clients that creates Tableau dashboards comparing financial and e-commerce metrics against other PwC clients using SQL and Node.js
- Designed organizational charts and process flows for customer service agent reference to facilitate ease of user migration into new banking platform for credit union client, resulting in streamlined operations

Royal Bank of Canada

Data Science Co-op – Security and Operations Centre

Toronto, Canada

May 2018 – Sept 2018

- Utilized ML methods to assist Security and Operations Centre teams in their surveillance activities and future initiatives
- Designed and created data preprocessing pipelines for parsing security and transactional data sources into datasets for future proof of concepts using libraries in Python
- Prototyped multiple models to categorize fraudulent transactions, ultimately landing on a threshold for autoencoder reconstruction error in TensorFlow

London Life Insurance Company

Actuarial Associate – Actuarial Best Practices

London, Canada

Sept 2017 – Dec 2017

- Consolidated and verified quarter-end reported data using models in GGY Axis software and Excel
- Performed peer review and analysis on the compliance of internal reports and documentation ensuring adherence to new terms of Life Insurance Capital Adequacy Test (LICAT) standards
- Discovered modelling inconsistencies leading to the remediation of errors and provided recommendations for improving valuation processes for Term-Life and Annuity lines of business using VBA and Excel

Royal Bank of Canada

Data Science Co-op – Enterprise Information Management

Toronto, Canada

Jan 2017 – Apr 2017

- Performed initial exploratory data analysis and data mining on unstructured log data to identify misuse cases using PySpark
- Prototyped clustering models and preprocessing pipelines on datasets to discover types malicious potential threat actors
- Wrote documentation for internal data parser built on Hadoop platform to be used for future data lake initiatives

Projects

Foreign Exchange Algorithmic Trading • Python

PERSONAL PROJECT

- Developed script that connects to forex trading platform FXCM to execute buy and sell orders with REST API using Python
- Implemented Renko Charts and MACD calculations as technical indicators to enter long/short positions for major currency pairs
- Validated strategies through comparison against historical stock data by web scraping Yahoo Finance pages

Classifying Music Genres • Jupyter Notebook

PERSONAL PROJECT

- Utilized BeautifulSoup4 library to parse popular Spotify playlists, creating multi-class features based off audio signals
- Trained and tested neural network and logistic regression model using Keras and made improvements for accuracy of ~85%

Residential Properties Price Prediction • R

STAT 444 FINAL PROJECT

- Predicted housing market prices based on Kaggle D.C residential property dataset using Caret package in R
- Evaluated and tuned parameters for random forest, gradient boosting, and smoothing techniques to achieve ~80% accuracy

Education

University of Waterloo

Bachelor of Mathematics, Majoring in Statistics

Waterloo, Canada

Sept 2015 – Dec 2020

Certifications & Interests

Certifications: Society of Actuaries' P/1 Exam, Andrew Ng Machine Learning (Coursera)

Interests: Still Life Drawing, 3D Animation, Japanese Cuisine, Biographies, Yoga