CALVIN CHOI, CIP, CRM

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SKILLS

Languages:
SQL, Python, R

Tools/Databases:
MS Excel, Tableau, MySQL, SQLite

Python Frameworks:
Pandas, NumPy, Scikit-Learn, NLTK, SpaCy, Seaborn, Matplotlib, SciPy, Statsmodels

Data Mining and Modelling:
Regression/Classification, Clustering, Natural Language Processing (NLP), Data/Text Preprocessing, Feature Engineering, Dimensionality Reduction, Hypothesis Testing

EDUCATION

York University
BA Business Economics (Honours) - June 2013

Ryerson Chang School of Continuing Studies
Data Analytics, Big Data, and Predictive Analytics (remote) - Dec 2020

Risk and Insurance Management Society, Inc.
Certified Risk Management (CRM) - July 2017

Insurance Institute of Canada
Chartered Insurance Professional (CIP) - January 2016

ANALYTICS / DATA SCIENCE PROJECTS

Predicting Claims Severity with Advanced Regression (Python)

- Trained linear, SVM, and tree-based regression models, incl. XGboost and LightGBM, to predict insurance claim severity (in dollars).
- Applied Bayesian optimization to efficiently locate optimal hyperparameters for each model to reduce the mean absolute error of predictions.
- Stacked individual models into a single estimator to further improve MAE.

Uncovering Toronto Crime Patterns with Cluster Analysis (Python)

- Combined TPS crime data and climate data from Environment Canada to uncover patterns in criminal activity using cluster analysis (unsupervised learning).
- Utilized the K-prototypes algorithm to cluster categorical and numerical data.
- Substantial data cleansing and preprocessing employed to transform raw data.
- Used data visualization to summarize the characteristics of each cluster.

Predicting Future Booking Cancellations (Python)

- Trained several classification algorithms to make predictions on whether customers will cancel their booking using data entered at the time of booking.
- Built custom transformers to automatically group, bin and discretize data.
- Built pipelines to bind transformers and predictors for further automation.
- Used GridsearchCV on pipelines to tweak parameters of both predictors and transformers concurrently to arrive at the strongest model.

EXPERIENCE

Ecclesiastical Insurance Office Plc., Toronto
Commercial Underwriter, Central Region **September 2018 - January 2020**

- Prepared, analyzed and summarized quantitative/qualitative data to assess the risk of commercial clients and to determine the profitability of insuring them.
- Utilized Excel lookup functions to compile underwriting, claims and financial information on large accounts to present to higher authority for signoff.
- Created functions in Excel to help automate the pricing process of policies.
- Analyzed geospatial earthquake and flood data to limit exposure to portfolio.
- Identified and lead process improvement opportunities on the business and systems side through collaboration with senior management.
- Left position to pursue further education in data analysis (Ryerson program)

Northbridge Financial Corporation, Toronto
Commercial Underwriter, Consumer Business Services **May 2014 - April 2018**

- Profitably priced new business and renewals by assessing exposures and hazards uncovered through underwriting data.
- Investigated discrepancies in client statements and applications by reviewing audited financials, profit and loss statements, and CRA information.
- Created ad-hoc performance reports and compiled metrics to discuss and present results/strategy with upper management.
- Supported the Claims department in their investigation of fraudulent claims.
- Developed and maintained professional working relationships with external stakeholders.