Anthony Chan

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A goal-oriented team-player with strong reasoning and creative-thinking skills refined through ~2 years of work experiences, a quantitative education and competitive extra-curricular activities.

EXPERIENCE

Global Data Market Analyst
Bloomberg L.P. — **May 2020 – Present**

Management Consultant/Data Scientist
Ekimetrics — **Aug 2019 – Dec 2019**

Leveraged data science expertise to deliver marketing strategies. Designed compelling presentations that convinced *Fortune 500* (luxury, FMCG and insurance) executives to adopt the team's proposals. Independently extracted sizeable datasets of 10 million+ records in SQL, then built, trained and tuned machine learning models in R and Python.

A.I. Researcher
McGill University & University of Waterloo — **May – Aug, Dec 2017**

Launched user studies to appraise the effectiveness of a new algorithm designed to improve webpage depiction for users with assistive needs. Co-authored academic research papers for the *Conference on Computer Vision* and *Winter Conference on Applications of Computer Vision*.

Actuary
FWD Insurance — **Dec 2017 – Apr 2018**

Performed data engineering and warehousing work. Reduced 20% of routine data transformation for month-end reporting. Automated gap analyses via ETL pipelines in Python, VBA and SQL.

TECHNICAL PROJECTS

Improving the KNN Algorithm • Experimental method to imputing missing data
Constructed a new distance measure for the *K-Nearest Neighbours* (KNN) algorithm. The proposed algorithm assigns weights to each independent variate based on their scaled regression Betas. Tested the prototype over 1,000 simulations on a known dataset with randomized missingness. Results revealed that relative bias saw improvement, but run-time soared as well.

Stock Price Forecasting • Automated forecasting with the *Prophet* algorithm
Integrated *Yahoo Finance* into the pipeline, allowing for pre-processing of the data before parsing into *Prophet*. Developed a tool requiring only 2 parameters (a stock ticker symbol and forecast horizon) to generate forecasts and display them on an interactive UI.

[Ongoing] Predicting Loan Durations • Implemented Extreme Gradient-Boosting
Cast an *XGBoost* model on *Lending Club*'s customer loan data (~900 customers and 74 factors) from 2007 to 2015. Tuned parameters of the model to achieve high accuracy with minimal foregoing of speed.

EDUCATION

Bachelor of Mathematics, Honours Statistics • Minor in Computer Science
University of Waterloo

Behavioural Finance
Duke University • Classical economics, loss aversion, money management, Market Life Cycle

An exploration of the cognitive biases which typically mislead investors into making sub-optimal choices. Weighed risk-reward scenarios to avoid cases in which one might bear unnecessarily high amounts of risk for disproportionately low levels of reward.

Bloomberg Market Concepts
Bloomberg L.P. • Economics, currencies, fixed income, equities, Terminal, portfolio management

An overview of the finance industry, portfolio management and *Bloomberg*'s core value propositions.

[Ongoing] Machine Learning
Stanford University • Neural networks, Support Vector Machines, outlier detection

A compilation of industry-relevant machine learning concepts, many of which have inspired extracurricular projects of mine.

SKILLS

Technical • R, SQL, Python, MATLAB, VBA, SAS

Languages • English, Cantonese, Mandarin

Athletics • National and provincial Taekwondo champion, 4th Degree Black Belt

Music • Scholarship-winning pianist, RCM Grade 8

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