PATRICK LEE

DATA SCIENTIST

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Actuarial Exams

Exam P/1 - Probability

Exam FM/2 - Financial Mathematics

Exam MFE/3 - Models for Financial Economics

Skills

LANGUAGES AND LIBRARIES

Python
SQL
NLTK
spaCy
Scikit-learn
Pandas
NumPy
RegEx
BeautifulSoup
Bash

MACHINE LEARNING

Gradient Boosting
Random Forests
Natural Language Processing (NLP)
Linear Regression
Logistic Regression
Unsupervised Learning (Clustering)
Dimensionality Reduction

VISUALIZATIONS

matplotlib
seaborn
Tableau
Flask

DATA MANAGEMENT

Amazon Web Services (AWS)
Git / Github
MongoDB
Hadoop
Spark
SAS
Excel
Access
Ratabase

Experience

Metis
New York, NY
Jan. 2019 to Current
Data Scientist / Data Scientist TA
- Full-time ACCET-accredited immersive data science bootcamp. Five full-cycle projects from inception to execution, including data acquisition to analysis
- Used machine learning and statistical modeling methods: linear regression, supervised learning and classification, unsupervised learning and clustering, natural language processing, deep learning

The Hartford Financial Services Group, Inc.
Hartford, CT
May 2016 to Dec. 2018
Senior Actuarial Analyst / Actuarial Analyst
- Performed statistical and actuarial experience analysis on 12 states to determine adequate rate level
- Analyzed loss data and identified trends to provide risk based premium pricing for a given individual
- Used databases in SAS and Access to prepare actuarial portions of financial statements for state insurance department filings and internal management reports
- Strategically presented proposals to the Department of Insurance and AARP. Provided clarification and solutions to their comments/objections (20+ filings approved)

Korean American Medical Association
Englewood Cliffs, NJ
Jan. 2015 to Mar. 2016
Executive Director of KAMA
- Managed largest non-profit national organization representing Korean American physicians
- Coordinated 2015 Scientific Convention held in Seoul, Korea (63 speakers, up to 160 participants per session). Attendees included US Ambassador to Korea and the President of AMA
- Led a team of 31 medical student volunteers to streamline operations during the 5-day conference

Animated Storyboards
New York, NY
June 2013 to July 2014
Operations Analyst
- Formatted and launched a series of Excel spreadsheets, used by the executive team, that easily calculates previously unknown company statistics such as company growth, company productivity, individual productivity, average time for posting/client feedback, and percentage of projects per month, per office, and per individual
- Effectively communicated with 8 studios worldwide to reallocate labor and meet 10+ deadlines a day
- Served as a liaison between directors, producers, and designers and delegated editing tasks to 200+ in-house animators to produce quality advertisements for the Super Bowl

Muriel Siebert & Co., Inc.
New York, NY
June 2012 to Aug. 2012
Economic Analyst Intern
- Collected economic and financial data to be covered in our monthly client newsletter
- Prepared data into well-organized outlines to be used by the Chief Marketing and e-Business Officer
- Identified key facts within a vast number of publications (i.e., FT, WSJ, CNBC, Bloomberg, Reuters), staying on top of continuously publishing articles that were updated and modified intraday

Data Science Projects

NBA All-Star Votes Predictor
Iteratively scraped and wrangled 20+ years of Basketball-Reference data (using BeautifulSoup and pandas) and applied linear regression to determine how player season stats can predict their All-Star votes

E-commerce Product Repurchasing Classifier
Feature engineering data from a major online grocery retail player, utilized random forest and XGBoost algorithm to classify whether or not a customer will repurchase a given product

"The Office" Character Relationship Episode Recommender
Built a recommendation system app using character lines from the most popular show on Netflix to find episodes based on specific two-pair character relationships using NLP and cosine similarity

The Perfect Partner ("Codenames" AI Bot)
Leveraged Gensim's Word2Vec to train a neural net bot that can play a popular game called Codenames with human partners using word embeddings from their personal Facebook Messenger data

Education

New York University
Sept. 2009 to May 2013
B.A. Major: Economics, Minor: Business Studies