ZHUOQUAN CHEN

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PROFILE

As a Data Scientist, I have an educational background in both Computer Science and Data Science. I am analytical, data-oriented, and calculated. I have an affinity for innovation and big-picture thinking, but I also enjoy digging into the details to solve complex problems.

PROJECTS

Customer Market Segmentation

This project helped the customer department to segment a customer market using unlabeled credit card consumption data.

- Applied elbow Method to find the optimal number of cluster
- Apply unsupervised algorithms (K-Means) to perform market segmentation
- Trained autoencoders model in Keras
- Applied principal component analysis

Stocks Portfolio Analysis

This project achieved an optimal weight combination for a group of stock portfolios.

- Portfolio return calculation in the price-weighted portfolio, equal-weighted portfolio, and value-weighted portfolio
- Portfolio correlation analysis such as correlation matrix, covariance matrix, and standard deviation
- Applied Markov Chain Monte Carlo (MCMC) Simulations
- Applied Sharpe Ratio to select the optimal portfolio

Games Classification

This project leveraged NLP to achieve the classification of card games and board games.

- Data scraping
- Applied CountVectorizer to tokenize contents and calculate the frequency of words
- Applied classification models with optimal hyperparameters
- Estimated the performance of models

Predicting House Prices

This project achieved the housing price forecast of the area of Ames, Iowa.

- Applied outliers detection and feature engineering
- Applied regression models with regularization
- Estimated the performance of models

TECHNICAL SKILLS

Data Pre-processing: data cleaning and data visualization, PCA, dimensionality reduction, feature engineering

Machine Learning: classification model, regression model, clustering, NLP, Time Series Analysis, Neural Networks. Statistical

Methods: Statistical Distributions, Bayesian Analysis, p-Values, Hypothesis Testing

Programming Languages: Python (Scikit-learn, Numpy, Pandas, Matplotlib, Seaborn, Plotly), SQL, Java, C++

EDUCATION

General Assembly | Data Science Immersive Course *Sep-Dec 2020*

Brooklyn College | B.S. Bachelor of Science in Computer Science *Aug 2018-May 2020*

Borough of Manhattan Community College | A.S. Associate of Science in Computer Science *Aug 2016-May 2018*

EXTRACURRICULAR

Deep Learning Team *Sep 2019-Jan 2020*

Joined Professor Tang's Deep Learning team in Computer Vision in BMCC college.

CUNY Hackathon 2019 *Dec 2020*

My team's idea in this competition was that designed a wearable device (such as glasses and watch, etc.) with AI technique, which can help blind people get rid of blind stick in travel, and improving the life in the world.