ZHUOQUAN CHEN

DATA SCIENCE / MACHINE LEARNING

(+1) 718-300-0078
zhuoquan1223@gmail.com
https://zhuoquan-chen.github.io/portfolio

EDUCATION

- General Assembly | Data Science Immersive Course, Manhattan, NY   Jan 2021
- Brooklyn College | BS. Computer Science, Brooklyn, NY   Aug 2018 – May 2020
- Borough of Manhattan Community College | Computer Science, Manhattan, NY   Aug 2016 – May 2018

SKILLS

- Data Processing: Data Cleaning / Data Visualization / PCA / APIs / Dimensionality Reduction / Feature Engineering.
- Machine Learning: Classification / Regression Model / Clustering / NLP / Time Series Analysis / Neural Networks / CNNs.
- Methods: Statistical Distributions / Bayesian Analysis / P-Values / Hypothesis Testing / Markov Chain Monte Carlo / Data Modeling.
- Programming Languages: Python / SQL / Java / HTML / CSS / JavaScript / Node.js.

EXPERIENCE

BMCC | College Assistant, Financial Aid Department, Manhattan, NY   Oct 2017 - Present

- Worked for data entry of more than 100,000 financial aid applications data each academic year.
- Provided Financial Aid counselors with specific data on the students they need.
- Used Python to clean and filter duplicate data and ensure students' names will not repeat to appear on the calling list.

GENERAL ASSEMBLY | Apprentice , New York, NY   Sep 2020 – Jan 2021

- 500+ hours full-time immersive educational program strengthening Data Science skills including Python, SQL, data cleaning, data visualization, regression models, classification models, web-scraping, APIs, NLP, advanced supervised learning, unsupervised learning, time series analysis, and statistics.

PROJECTS

SENTIMENT ANALYSIS & CLASSIFICATION

Skills: NLP / CountVectorizer / Sampling / Naive Bayes / Logistic Regression / GridSearchCV / Confusing Matrix

The purpose of this project is to determine a customer whether satisfied or not with a product of Amazon by analyzing their feedback.

- Naive Bayes Model with 91.7% accuracy for new data, and with 89% accuracy for detecting people who are not satisfied.
- Logistic Regression Model with 94.7% accuracy for new data, and with 89% accuracy for detecting people who are not satisfied.

MARKET SEGMENTATION

Skills: Unsupervised Learning / K-Means / PCA / EDA / Data Visualization / Data Cleaning

The purpose of this project is to help the Marketing Department of banks to segment the consumption market by clustering customers based on their credit card consumption data, then launch ads to target it precisely to grow or extend business.

- The customer dataset was divided into 5 clusters by K-Mean algorithms.
- The dimensionality of the dataset was reduced to 2 dimensions for visualization.

CHEST DISEASE CLASSIFICATION

Skills: Residual Neural Networks / Convolutional Neural Networks / Transfer Learning / Drop out / Data Visualization

The purpose of this project is to use the ResNet model that is pre-trained on ImageNet to transfer learning by fine-tuning the model so that the model can fit new data. The new model can identify different types of chest disease by learning from X-ray images.

- Model testing validation accuracy: 80% with 50 epochs.
- The model has weak performance at precision for covid-19 & bacterial pneumonia symptoms with 68% & 55% accuracy.

ACTIVITIES

- Deep Learning Team | BMCC, Manhattan, NY   Sep 2019 – Jan 2020
- CUNY Hackathon 2019 | Baruch, Manhattan, NY   Nov 2019