Kay Ayala

Kay-Ayala@protonmail.com | (415) 328-9372 | San Francisco, California

https://github.com/KaysData | www.linkedin.com/in/kay-ayala

Education

Southern Methodist University — Nov 2018 – Dec 2020

Master's degree in Data Science

University of California, Santa Cruz Extension — Dec 2017 – Apr 2018

Continuing education – programming

University of California, San Diego — Sept 2014 – Jun 2017

BS. Cognitive Science with emphasis in Computation

Technical Skills

Software and Programming Languages: Python, C, Java, SAS, R, Matlab, SQL, NumPy, SciKit-Learn, SciPy, pandas, Tensorflow, Keras

Selected Coursework: Brain Computer Interfaces BCI, Neural Networks and Deep Learning NN DL, Machine Learning ML, Probability, Statistics, Experimental Design, Natural Language Processing NLP, Time Series Analysis

Projects

Optical Character Recognition (OCR) for Arabic handwriting

- Classified Arabic handwritten character images with 93% accuracy
- Utilized a convolutional neural network using Tensorflow
- Implemented two convolutional layers each with their own pooling layer
- Utilized python and Jupyter Notebooks on Amazon Web Services (AWS) EC2

Project Nyx

- Total project consisted of 23 people over 48 hours
- Helped develop business objectives
- Assisted in coordination between management and modeling teams
- Assisted in data visualization and website design
- Assisted in communicating between reporting and modeling teams

Time Series Forecast of Bike Share Data

- Compared performance of ARMA, ARIMA, VAR, NN, and VAR-ARMA Ensemble
- Forecasted ridership
- Written in R using tswge

Markov Chord Progression Generator

- Implemented Markov chain to create and play new chord progressions
- Built the dataset from listings of common progressions
- Utilized python and pyaudio for sound generation

Performance Comparison of SVM, Decision trees DT, and K-nearest neighbors KNN

- Evaluated three datasets from the UC Irvine ML repository (wine production location estimation, wine quality classification, and breast cancer estimation)
- Written in python using NumPy and scikit-learn