Kay Ayala

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<https://github.com/KaysData> | [www.linkedin.com/in/kay-ayala](http://www.linkedin.com/in/kay-ayala)

Education

Southern Methodist University November 2018 – Present

Master’s degree in Data Science – In Progress

University of California, Santa Cruz Extension December 2017 – April 2018

Continuing education – programming

University of California, San Diego September 2014 – June-2017

BS. Cognitive Science with emphasis in Computation

Technical Skills

Machine Learning and Statistical Analysis

Software and Programming Languages: Python, C, Java, SAS, R, SQL, Matlab

Selected Coursework: Brain Computer Interfaces, Neural Networks and Deep Learning,

Supervised and Unsupervised Learning, Probability, and Statistics

Projects

Wrote convolutional neural network using TensorFlow (Optical Character Recognition: OCR)

* Classified Arabic handwritten character images with 93% accuracy
* Used two convolutional layers each with their own pooling layer
* Ran Jupyter Notebook on Amazon Web Services (AWS) EC2

Markov Chord Progression Generator

* Creates and plays new chord progressions using a Markov chain.
* The dataset was built from listings of common progressions.
* It is written in python using pyaudio for sound generation.

Compared performance of SVM (linear and RBF), Decision trees, and K-nearest neighbors

* Processed 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
* Utilized cross-validation for all analysis

Wrote doubly linked list in C for Student Data

* Handles file reading and writing, memory allocation/freeing, doubly linked list
* Produces student grade statistics
* Written in C

Exploratory Data Analysis on Brewery Data

* Imports CSV and has summary statistics and data visualizations built in R
* Uses R markdown and knitr to make a html file with full results presentation
* Includes a power point presentation with a subset of results