

Miguel Sebastian de la Mata

miguel.sebastian.de.la.mata@gmail.com | (828) 434-5245 | Denver, CO | github.com/sebidelamata
sebidelamata.github.io/datascienceblog | linkedin.com/in/miguel-sebastián-de-la-mata

SKILLS

Python, R, SQL, SAS, Linux, Git, AWS, Docker, Jira, Solidity, JavaScript, Pandas, Numpy, SciKit-Learn, Tensorflow, Keras, Flask, Tidyverse, dplyr, parsnip, Shiny, Dash, Plotly, ggplot2, matplotlib, seaborn, MongoDB, Splunk, Tableau, Data Cleaning, Statistics and Probability, Linear and Logistic Regression, Time-series Models, PCA, KNN, Tree-based models, XGBoost, Deep Learning, Agile PMF, Arduino, Spanish

EXPERIENCE

S&P Global Ratings

Denver, CO

Quantitative Model Analyst, Methodologies Center of Excellence

Aug 2022 - Present

Ratings Analyst, Methodologies Center of Excellence

March 2021 - Aug 2022

- Owner of two models used to generate forex depreciation and interest rate risks for client transactions.
- Contributing Author - A Deep Dive into Crypto Valuation, 10 Nov, 2022 - S&P Global.
- Contributing Author - U.S. Interest Rates in a Post-LIBOR World, 21 Sept, 2022 - S&P Global Ratings.

MThree Technical Consulting

Washington, DC

Trainee / Contract DevOps Engineer

May 2020 - Feb 2021

- Created custom Docker Images and pipelines using Jenkins and AWS resources to reduce downtime for both developers and end users.

Appalachian State University

Boone, NC

Data Scientist, Center for Analytics Research and Education

Aug 2019 - May 2020

- Created a curriculum for an online analytics certification program offered through the university with cooperation from SAS and INFORMS. Exceeded initial enrollment estimates by 19%.

Graduate Research Assistant, Dept of Economics (Part-Time)

Jun 2018 - Aug 2019

- Collected, ordered, and cleaned data from research participants to the system database for a behavioral economic study on residential energy consumption patterns in cooperation with New River Light and Power and the Appalachian Energy Center.

EDUCATION

Appalachian State University

Boone, NC

Master of Science (MS) in Applied Data Analytics (*GPA 3.6; August 2019*)

Bachelor of Science (BS) in Appropriate Technologies (*December 2017*)

Bachelor of Arts (BA) in Spanish Literature, Language, and Cultures (*December 2017*)

PROJECTS

Gamma Gamma Hey - Used a Raspberry Pi 4 with an R Shiny Server, R and shell scripts and a PostgreSQL database to automate scraping options data from the CBOE website and perform EDA.

Crypto Risk Analysis - Used R to build a Dash React.js-based app with interactive Plotly.js graphs and daily-updated data to look at the risk factors behind four major cryptocurrencies. Created a Docker image and deployed via Git to Heroku cloud hosting service.

Trump Tweets NLP / Market Volatility - Used Trump's Twitter data to predict whether market volatility will increase that day. Feature engineered data with SVD. The predictions were decided by a weighted voting classifier ensemble of regression, tree-based, and boosted models. Achieved an ROC AUC score of 56.5%.

COVID-19 / CPI - Built an ElasticNet Regression model in Python using web-scraped asset data to predict CPI offset by distorted inflation figures after the COVID-19 related market crash of 2020. At the time (Sept 2020) YoY CPI showed 1.3% inflation, while my model indicated it was at 2.6%.

Carolina Fintech Hub 2018 Fall University Hackathon - Team Member, Appalachian State University, University Finalist Oct 2018 Developed an Android/iOS mobile application using Python aimed to help Millennials invest more in sustainable and socially conscious Mortgage Funds and ETFs.