David Hartsman – Data Scientist

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PERSONAL SUMMARY

I apply creative and collaborative expertise gained from my careers as a professional musician and professional poker player to Data Science and Analytics. I am a driven high-integrity, intelligent, and generous person who will be an asset on any team I contribute to. I have experience in data acquisition, data cleaning, modeling, statistical analysis, visualization, natural language processing (NLP), machine learning, and deep learning. I've also demonstrated skills in critical thinking, perseverance, and communication that help every enterprise foster a productive, amiable working environment. I add substantial value to projects with my technical skill, strong work ethic, willingness to learn, and desire to improve.

TECHNICAL SKILLS

Python, SQL, Excel, Object Oriented Programming, Scikit-learn, NumPy, Pandas, Tableau, Seaborn, Matplotlib, Statsmodels, Statistics, Scipy, NLTK, Natural Language Processing, Keras, Tensorflow, Imblearn, SciKeras, Clustering, GitHub

TECHNICAL PROJECTS

Tanzanian Water Pumps - Github

Developed a model using Logistic Regression to predict the functional status of water pumps

- Analyzed 40 features with 60K observations using Pandas/Jupyter Notebooks
- Curated important features to be used for modeling
- Cleaned and prepared data for modeling, utilized methods of synthetic up-sampling to combat imbalanced data
- Iterated through Logistic Regression models, used GridSearchCV for hyperparameter optimization/model tuning

NLP of SXSW Tweets - Github

Analyzing tweets from the 2013 SXSW conference to detect positive, neutral, and negative sentiment

- Parsed and tokenized tweets in Pandas/Jupyter Notebooks
- Used Lemmatization and parts of speech to enhance the informational significance of specific word tokens by utilizing NLTK and WordNet Parts of Speech
- Vectorized data using both WordCount vectorization and TF-IDF vectorization
- Targeted specific performance metrics (precision, recall, and accuracy) for different business use-cases
- Used Python Object Oriented Programming (OOP) to create a custom class with fully encapsulated functionality

Predicting Stock Market Performance - Github

Developed multiple models to assist in making profitable investments at the Index and Sector ETF Level

- Collected data from multiple disparate outside sources using the APIs and Web Scraping
- Engineered features based on technical indicators, macro-economic data, datetimes, presidential cycles, etc.
- Utilized OOP and programming to create custom functions, and a Python class for data storage, plotting, and analysis
- Used machine learning models from the sklearn library, tuned model hyperparameters with GridSearchCV
- Utilized Keras/Tensorflow deep learning LSTMs to create Univariate Time Series linear models with a 99% R-Squared

EXPERIENCE

Professional Poker Player, Hollywood, FL — 06/2012 - Present

- Played poker at local casinos, specializing in cash games
- Self-assessment and accountability for results, strategy, and tactical adjustments
- Accumulated hand histories and tendencies on myself and regular opponents

Musician/Woodwinds, Hollywood, FL — 08/2000 - 06/2012

- Performed as a band leader and member in a variety of ensembles
- Recorded as a sideman for studios
- Taught private lessons to students ranging in age from middle schoolers to adults

Saxophone Professor, ***University of Miami/New World School of the Arts***, Miami, FL — 08/2010 - 06/2012

- University of Miami - Taught undergraduate jazz saxophone lessons, taught jazz combos
- New World School of the Arts - Taught jazz and classical saxophone lessons
- New World School of the Arts - Taught junior level music theory class

EDUCATION

Flatiron School, New York, NY — 08/2023 - 11/2023
Certificate of Completion - Data Science Immersive Program

University of Miami, Coral Gables, FL — 08/2008 - 05/2010
Master of Music - Jazz Performance

Northern Illinois University, DeKalb, IL — 08/2002 - 05/2006

Bachelor of Music - Saxophone Performance