**DANIELLE SHELTON**

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**DATA SCIENTIST | MACHINE LEARNING | TIME SERIES ANALYSIS | PREDICTIVE MODELING | STATISTICS**

**EDUCATION**

**Pace University, Seidenberg School of Computer Science and Information Systems** New York, NY

Master of Science (MS) in Data Science | **Concentration:** Data Science | **GPA:** 3.84 May 2024

**Seton Hall University** South Orange, NJ

Bachelor of Science (BS) in Mathematics

**RELEVANT COURSEWORK**

Python | Database Management Systems (DBMS) | Location Analytics & GIS | Mathematical Foundation of Analytics | Data Mining

Intro to Data Science | Machine Learning | Scalable Databases | Algorithms for Data Science | Analytics Capstone Project

**TECHNICAL SKILLS**

**Programming Languages:** Python, Weka | **Data Visualization Tool:** ArcGIS Online

**Libraries:** Python (Pandas, NumPy, Matplotlib, Seaborn, scikit-learn, SciPy) | **Database Management:** PostgreSQL, SQL

**Machine Learning Algorithms:** Regression (Linear, Logistic, Multiple), Decision Tree, KNN, K-Means, Random Forest, Naïve-Bayes

**Big Data Management:** HUE, Hadoop, BigQuery | **Development Frameworks:** Docker, MapReduce | **Cloud Platforms:** Google Cloud

**ACADEMIC PROJECTS**

**NYC Subway Crime Analysis Project using Logistic Regression & Time Series Analysis** January 2024 – Present

* Used queries to narrow the original dataset from 8.36 million data points to 183k.
* Perform exploratory data analysis (EDA) on NYC subway crime dataset using Matplotlib & Seaborn to identify patterns, establish inter-feature relationships, & visualize data.
* Implement Time Series Analysis using ARIMA modeling to determine effects of COVID-19 on future complaints made to NYPD, leveraging predictive analytics techniques including Logistic Regression, to predict offense level & location.

**Decision Tree and Regression Analysis of Workers’ Salaries** July 2023

* Analyzed salary ranges for 5k+ employees spanning global markets, performing exploratory data analysis (EDA) using Seaborn & Matplotlib to clean & prepare data for manipulation, establishing median salaries across demographic factors.
* Split data into train & test sets, loading into Logistic Regression & Decision Tree models to analyze salary ranges & identify most impactful features on salaries, utilizing Linear Regression to predict actual salaries & confirm feature correlation.
* Refined model parameters to increase predictive accuracy, findings identify decreased accuracy corresponding with salary increase.

**Closing Price of Stock - Time Series Analysis** May 2023

* Gathered historical stock data for manufacturing giant Caterpillar over 12 years, refining dataset to focus on necessary points, implementing autocorrelation function to determine influence of historical costs on current prices.
* Dissected data plots to identify micro-trends, splitting data into train & test sets based on date for loading into Time Series Analysis (ARIMA & SARIMA) models to assess feature correlations contributing to trends.
* Performed AD Fuller Test, confirming that data did not reflect seasonal trends, supporting earlier strong correlation between daily closing values.

**PROFESSIONAL EXPERIENCE**

**International Union of Operating Engineers, L.U 15D** New York, NY

Surveyor – Party Chief, Instrument Person October 2007 – December 2022

* Surveyed billion-dollar engineering projects throughout the NYC metropolitan region supporting teams of Project Managers, Engineers, & Tradesmen establishing baseline control, layout, asbuilts, & monitoring while adhering to safety guidelines.
* Developed accurate records of survey data, including sketches, utilizing robotic & manual total stations, GPS instruments, & scanners throughout all phases of projects.

**VOLUNTEER WORK**

**Engineer Girl,** Wharton, NJ | Bridge/Civil Construction Expert November 2022 – Present

* Afterschool STEM program, coaching third through fifth grade girls instilling passion for science & self-confidence in students through individual and group skill-building projects.