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Education

Arizona State University, Tempe, AZ

Master of Science in Industrial Engineering, statistics.

May 2021

4.00 GPA

Technical Skills

Languages: C, C++, Python, SQL, AMPL/CPLEX mathematical programming

Databases: MySQL, Microsoft Access, PostgreSQL, MongoDB

Tools: Tableau, Visual Basic(VBA), Minitab, JMP, PowerBI, Jupyter Notebook, SharePoint, MS Excel

Machine Learning: Python, R, Matplotlib, Pandas, Numpy, SciPy, MATLAB, Octave

Work Experience

Associate Project Engineer | Detroit Engineered Products | Chennai, India

April 2018 – July 2019

- Programmed Latin Hypercube model to generate DOE for a range of inputs given by the user to drastically reduce the cycle time up to 75% to achieve a reasonably accurate result.
- Trained a Neural Network on parallel GPU architecture and designed car hood models to minimize the Head Injury Criteria(HIC) of the occupant.
- Automated the modeling processes responsible for the reduction of up to 95% man-hours, and these process automation tools were responsible for an increase in sales of the product by 3 times.

Analyst | Scale Labs | Hyderabad, India

July 2017 – March 2018

- Developed various python scripts to clean, process and analyze the client data.
- Developed visualizations using Tableau to derive business insights by integrating quantitative findings and raw data.
- Analyze and interpret data to identify trends, patterns, and opportunities for the business and clients.
- Applied the ARIMA method to predict the future retail sales based on past values.
- Worked extensively on MS Excel and Google Sheets using functions such as Macros, Pivot Tables and Vlookups on data.

Data Analyst Intern | University of Pittsburgh | Pittsburgh, PA

December 2016 – June 2017

- Cleaned, transformed and modeled data to ensure and improve the accuracy of metrics calculations.
- Modified the existing Finite element code in python and conducted simulations with a wide range of data.
- Found out an optimal value of plastic to rubber thickness ratio to be 3.8 for the highest strain hardening effect.

Academic Projects

Applied Data Science Project -- Exploring the Taste of New York City (NYC) Neighborhoods

The idea is to categorically segment the neighborhoods of New York City into major clusters and examine their cuisines.

- The data of the neighborhoods was obtained from FOURSQUARE API as a *JSON file*, used modules such as *geopy*, *pickles* to gather relevant data, cleaned data and conducted *feature engineering* using 'one-hot encoding' function.
- Implemented the Silhouette method, the optimal number of clusters was found to be 8, conducted the *K-means* algorithm to cluster the data set into eight different clusters based on the type of cuisine.
- The categories were plotted using the *seaborn* library, used *folium* library to represent the map of NYC neighborhoods.

Data Mining Project -- Meal detection to provide Insulin

The primary goal is to detect a patient's meal based on time series data of Continuous Glucose Monitor(CGM) values.

- Performed preprocessing of data and extraction of features in *Matlab* based on the variation in CGM values.
- Classification models such as *SVM*, *Naive Bayes*, and *Neural Networks* have been implemented based on the above features and the data was trained on *SVM* as it gave the best *accuracy* and *F1 score*.

Inventory Management at Blue Bell

- Designed a 3NF relational database, and developed various *SQL* queries in *MYSQL* workbench so that the management can keep track of products sold, manage their Inventory and get information about potential future customers.
- Developed a *Visual Basic.NET* web application that will enable the users to access the database and will be able to browse through the information about final products, set order, check the status of an order

Certifications

- Data Science Professional | IBM
- Machine Learning | Stanford University
- SQL for Data Science | UC Davis
- The Numpy Stack | Udemy