

SUMMARY,

As a former engineer turned business analyst, I have over 5 years of experience utilizing data analysis and machine learning to drive data-driven decision-making. My expertise in Python programming, machine learning, data wrangling, and AWS cloud computing has allowed me to develop predictive models and make recommendations that improve customer satisfaction and retention rates. I have also collaborated on numerous research projects in the fields of biomedicine and nuclear physics.

KEY SKILLS

Python Programming , Machine Learning, Data Wrangling, ETL, Visualization (tableau, matplotlib), Databases (SQL, Postgres), AWS Cloud Computing , Data analysis, Time Series Analysis, Predictive Modelling, Data Mining, Data Storytelling, Project Management.

TECHNICAL SKILLS

Languages: Python, SQL, linux, C.

Tools, Models & Frameworks: Pandas, Matplotlib, Tableau, Scikit-learn, Git, PyTorch, AWS Cloud, DeFi, APIs.

PROJECTS

Analysing customer purchasing behavior for chip category

Feb '23 - Mar '23

https://github.com/dell-datascience/Analyzing-customer-purchasing-behavior-for-chip-category/blob/main/Quantum_Data_Analytics.ipynb

- Analyzed the purchasing behavior of customers who buy chips, which includes identifying the frequency, quantity, and types of chips they purchase, in an effort to inform and drive strategy for supermarket's chips division for the next half year.

Bank Loan Data Analysis

Jan '23 - Feb '23

https://github.com/dell-datascience/Prosper_Bank_Loan_Data_Exploration

- Conducted in-depth analysis on loan status of borrowers by investigating various factors using a dataset of 113,937 loans with 81 variables each.

Twitter API Analysis of WeRateDogs

Nov '22 - Dec '22

https://github.com/dell-datascience/WeRateDogs_twitter_analysis

- Programmatically downloaded files from WeRateDogs twitter account.
- Queried Twitter API to extract data.
- Assessed, cleaned and stored the extracted data.
- Analyzed the data to identify insights.
- Visualized the insights using appropriate tools.
- Reported the findings to the team.

Bank Customer Churn Prediction

Nov '22 - Dec '22

<https://github.com/dell-datascience/Bank-Customer-Churn-Prediction>.

- Utilized customer data analysis to accurately predict and classify potential churn behavior.
- Developed a model that attaches a probability to the churn of each customer.
- The model makes it easier for customer service to target inactive customers.
- The primary objective is to implement strategies that minimize customer turnover, resulting in increased customer retention rates. Classified if a customer was going to churn or not.

Predicting Property Maintenance Fines

Sep '22 - Oct '22

<https://github.com/dell-datascience/Predicting-Property-Maintenance-Fines>

- Developed a predictive model using random forest regression to determine the probability of residents paying or defaulting on blight fines.

WORK HISTORY

Data Scientist

Nov '19 - Mar '23

Ocean Green Beach Resort.

- Queried and analyzed customer spending data to identify trends and patterns, enabling better decision-making.
- Developed predictive models and made recommendations based on customer spending data analysis.
- Improved customer satisfaction by assessing needs and enhancing product offerings and services.
- Organized Friday night music performances to boost customer engagement and satisfaction.
- Implemented drink discounts to increase customer loyalty and sales.
- Forecasted demand, optimized pricing, managed inventory, and identified revenue opportunities by analyzing pricing and demand data.
- Developed and implemented user-friendly dashboards to provide quick and concise insights into sales and operations, facilitating informed decision-making processes.
- Tested client satisfaction by working with 20+ clients to understand their needs and expectations, and deploying analytics to gauge satisfaction levels.
- Assisted 10+ clients with designing marketing and research campaigns by compiling and analyzing collated data.
- Boosted subscribers by 32% by analyzing customer habits and creating user-friendly reports using data manipulation.
- Provided recommendations to the hospitality team by analyzing data sourced from 500+ users and drawing conclusions.

Data Analyst

Nov '19 - Mar '23

Independent consultant

- Successfully managed and delivered 12 client projects with a 98% customer satisfaction rate.
- Developed client proposals and presentations utilizing quantitative analysis and industry research.
- Conducted data analytics project that revealed the correlation between environmental quality and GDP of China.
- Developed K-Nearest Neighbor machine learning models to accurately predict China's GDP using environmental factors.

Data Analyst

Jun '17 - Sep '19

Nuclear Power institute, Accra- Ghana

- Collaborated and liaised with distributors and customers to collect and analyze primary data for conducting analysis.
- Gathered environmental data including seismic, tidal level, wind, humidity, and temperature.
- Conducted data wrangling and in-depth analysis of the collected data to extract valuable insights and trends.
- Implemented predictive models to aid in selecting candidate sites for building nuclear power plants

Research Analyst

Sep '15 - May '17

University of Ghana

- Conducted research on utilizing speech signals as an alternative to spirometry for diagnosing Asthma.
- Utilized statistical modeling techniques to develop highly accurate predictive models for the diagnosis of various pulmonary diseases.
- Played a vital role in analyzing specimens to aid physicians in the diagnosis of illnesses.
- Executed research on using speech signals as an alternative to spirometry in Asthma diagnosis.

Internship

Data Analyst

Feb '23 - Mar '23

Quantium

Australia

- Conducted a detailed analysis of customer segments and their chip purchasing behavior using Python to provide strategic recommendations to Julia, the Category Manager.
- Analyzed large-scale data sets to understand current purchasing trends and behaviors, providing high-level data summaries and identifying outliers to improve data accuracy and reliability.
- Derived additional features such as pack size and brand name from the data and defined metrics of interest to draw insights on customer spending habits.
- Developed insights on what drives spending for each customer segment, providing actionable recommendations for a commercial application to support category review, with possible +18% revenue.
- Demonstrated proficiency in Python, utilizing various analytical tools and techniques to perform complex data analysis.

EDUCATION

Data analyst (Udacity nano degree)

Nov '22 - Jan '22

- Proficient in Data Analysis, Practical Statistics, Data Wrangling, Data Visualization with Python, and SQL.

Applied Data Science with Python (Coursera Specialisation)

Sep '19 - Dec '22

- Proficient in Python for Data Science with expertise in Applied Plotting, Charting & Data Representation, Applied Machine Learning, Applied Text Mining, and Applied Social Network Analysis.

Programming for Data Science (Udacity nano degree)

Oct '19 - Dec '19

- Proficient in SQL, Shell scripting, and Python programming language with experience in version control.

Harbin Engineering University - China

- Proficient in Nuclear Physics with expertise in Reactor Physics and Nuclear Power Systems. Skilled in designing, developing and maintaining Nuclear Power Equipment. Proficient in Numerical Calculus for accurate analysis.

University of Ghana

- Proficient in Algebra, Physics, Calculus I & II, and Basic Mechanics I & II

PEER REVIEW PUBLICATIONS

- Developed and implemented Speech Signal Analysis technique as an alternative to Spirometry for accurate Asthma diagnosis (DOI: 10.4172/2475-7586.1000136, Journal of Biomedical Engineering and Medical Devices)