VAMSHIDHAR CHIGULLAPALLI
DATA ANALYST

Texas (Open to Relocation), USA | (551) 888-0784 | vamshidharchigullapalli28@gmail.com | LinkedIn

SUMMARY

Experienced Data Analyst with 5 years of expertise in analyzing and interpreting complex datasets to drive strategic decision-making across healthcare and financial sectors. Proficient in Python, SQL, and advanced analytics tools, including Tableau, Power BI, and AWS services. Demonstrated success in managing data pipelines, developing predictive models, and optimizing ETL processes. Skilled in statistical analysis, data visualization, and machine learning algorithms, with a strong track record of reducing operational inefficiencies, improving data accuracy.

SKILLS

Methodologies:	SDLC, Agile, Waterfall
Languages:	Python, R, SQL
IDEs:	Visual Studio Code, PyCharm, Jupyter Notebook
Packages:	NumPy, Pandas, Matplotlib, SciPy, Scikit-learn, TensorFlow, Seaborn, dplyr, ggplot2, Keras
Visualization Tools:	Tableau, Power BI, Advanced Excel (Pivot Tables, VLOOKUP)
Cloud Technology:	AWS S3, Lambda
Database:	MySQL, SQL Server, PostgreSQL, MongoDB
Other Skills:	SSIS, SSRS, SAS, Machine Learning Algorithms, Probability distributions, Confidence Intervals, ANOVA, Hypothesis Testing, Regression Analysis, Linear Algebra, Advance Analytics, Data Mining, Data Visualization, Data warehousing, Data transformation, Data Storytelling, Association rules, Clustering, Classification, Regression, A/B Testing, Forecasting & Modelling, Data Cleaning, Data Wrangling, Jira, Git, GitHub
Operating System:	Windows, Linux, Mac OS

EXPERIENCE

Data Analyst | HCA Healthcare, TX **Aug 2023 – Present**

- Managed a patient readmission prediction project, analyzing data from 50,000+ patient records across 5 HCA Healthcare facilities to reduce 30-day readmission rates for heart failure patients
- Utilized SQL Server to extract and integrate 500GB of patient data from EPIC EHR systems, improving data accessibility by 25%
- Developed 8 Python scripts using pandas and NumPy for data cleaning and preprocessing, reducing data preparation time
- Created interactive Tableau dashboards to visualize readmission trends and risk factors, increasing stakeholder understanding of key metrics by 30% as measured by post-presentation surveys
- Conducted A/B testing on post-discharge follow-up protocols, using Python for statistical analysis to identify a 7% reduction in readmissions for the intervention group. Utilized SAS for time-series analyses, forecasting monthly variations in readmission rates with 80% accuracy
- Leveraged AWS services, particularly Amazon S3 and AWS Lambda, to automate daily data transfers and risk score calculations for the 5 participating hospitals, processing 50GB of patient data daily

Data Analyst | Deloitte, India **Aug 2019 – Dec 2022**

- Wrote Python scripts using pandas and NumPy to clean and preprocess daily incoming data from over 1 million customer loan applications, ensuring data quality and reducing errors by 25%
- Executed complex SQL queries to extract and transform loan, repayment, and financial data from multiple databases, optimizing ETL processes and reducing data retrieval times by 20%
- Managed and maintained large-scale databases (up to 5 million records) using PostgreSQL and MySQL, ensuring data accuracy and reliability for ongoing analysis projects
- Built and fine-tuned predictive models using scikit-learn for customer behavior analysis, achieving an 85% accuracy rate in customer churn predictions, leading to more targeted retention strategies
- Designed comprehensive Power BI dashboards to monitor business KPIs across departments, reducing manual reporting processes by 25% and enabling data-driven decision-making
- Conducted detailed statistical analysis using Python to identify trends, correlations, and outliers in customer transaction data, leading to a 10% improvement in fraud detection accuracy

PROJECTS

Lie Detection Using LLM

- Researched FLAN-T5 models for lie detection, analyzing performance across small, base, and large sizes using diverse datasets to enhance scalability and accuracy
- Created visualizations like confusion matrices and histograms to evaluate model performance and provide recommendations for optimal model selection based on resource efficiency

BRAIN CONTROLLED WHEELCHAIR USING NON-INVASIVE EEG

- Analyzed EEG data using the Multiclass Decision Forest Algorithm to enable autonomous movement of a brain-controlled wheelchair.
- Processed and modeled EEG signals, integrating data insights to simulate the wheelchair in 3D using Unity 3D

EDUCATION

- **Master of Science in Data Science -** University of North Texas, Denton, Texas, USA
- **Bachelor of Technology in Electronics & Instrumentation Engineering -** Amrita School of Engineering, India