Abhinav Patel

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https://github.com/abhinavpatel202

Education

University at Buffalo, MS in Data Science   Aug 2023 - Dec 2024
- **Coursework:** Statistical Data Mining, Database Management Systems, Data visualisation with business insights, MachineLearning, Probability and Data analysis, Cyber Security privacy and ethics.

Dwarkadas. J. Sanghvi College, B.Tech in Information Technology   Jul 2019 - Jun 2023
- **Coursework:** Data Structures and Algorithms, Operating Systems, Computer Networks, Data Warehousing and Mining, Artificial Intelligence, Software Engineering, Business Analytics, UI/UX, Game Design and Gamification, Design Patterns

Experience

Data Analyst - DRAI FutureGen LLP , Gujarat, India   Aug 2022 – Jun 2023
- Analyzed performance metrics and sensor output data from **drone prototypes** to identify patterns and improve object tracking efficiency by **15%**, contributing to smarter decision-making in real-time navigation systems.
- Collaborated with cross-functional teams to build data pipelines that enabled seamless transfer of sensor data into analytical environments for pre-processing and model evaluation.
- Leveraged Python (**Pandas, NumPy, Matplotlib**) to perform exploratory data analysis (EDA) and visualize drone flight patterns, uncovering insights that led to **15% improvement** in route efficiency.

Projects

Word Wrangling & Text Analytics Tool   Nov 2024 - Dec 2024
- Developed a scalable text analysis tool using Python to preprocess, tokenize, and analyze unstructured data, resulting in a **95% reduction in noise** through custom stopword removal and punctuation handling.
- Engineered a word frequency engine using `collections.Counter`, achieving **real-time extraction of high-frequency terms** from raw text with **over 3,000+ words per run**.
- Incorporated advanced string manipulation and NLP techniques to identify **top 20% unique keywords**, enabling downstream tasks like sentiment analysis and keyword clustering.

Lung Disease Detection from X-Ray using GANs   Aug 2022 - May 2023
- Spearheaded a final year project on lung diseases diagnosis using X-Ray images, achieving 92% accuracy in disease classification .
- Applied a CNN-based model with TensorLayer, improving disease detection accuracy by 10% compared to traditional methods; utilized linear SVM and random forest as base learners.
- Lung GANs achieved the classification performance of 97%.

Bookstore Insights in Tableau   Apr 2022 - May 2022
- Crafted dashboards and advanced visualizations in Tableau, leveraging calculated fields, parameters, and filters to provide actionable insights tailored to six unique stakeholder perspectives, including sales analysts and marketing managers.
- Enhanced data storytelling by integrating multidimensional metrics like genre-specific sales, customer engagement, and regional revenue distribution, using Tableau's interactive features to foster informed decision making.

CinemAround Database Project   Nov 2024 - Dec 2024
- Designed a comprehensive cinema database akin to **Netflix**, utilized **Oracle SQL** for querying business insights, and crafted powerful **PowerBI** dashboards for real-time analysis.

Skills

Programming Skills : SQL, R, Python, Tableau, PowerBI, C/C++,Excel, AZURE ML STUDIO, scikit-learn,
Technical Skills: Data Processing, Data Transformation, Data Visualization, Data Imputation, A/B Testing, ETL processes, Machine Learning, Pipelining , Feature Engineering , Inferential Statistics, Exploratory Data Analysis (EDA),Microsoft Azure ML

Certifications

- Demonstrated advanced SQL skills in solving complex database queries and optimizing performance in real-world assessments on HackerRank.
- Gold Badge in SQL on LeetCode: Recognized for advanced skills in SQL.
- Udemy DP-100: Designing and Implementing a Data Science Solution on Azure - Completed a comprehensive course by JiteshKhurkhuriya, covering key concepts in data science and machine learning on Azure, including model creation, deployment, and certification preparation.