Vraj Pandya

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Education

Master of Science in Computer Science *Wilfrid Laurier University* Sep 2023 – Dec 2024
GPA: 3.76/4.0 Waterloo, ON
Bachelor of Engineering in Information Technology *Gujarat Technological University* Jul 2018 – Jul 2022
GPA: 3.87/4.0 Ahmedabad, India

Work Experience

Data Analyst Jan 2024 – May 2024
Inclusivity Institute For Better Data Toronto, ON
• Partnered with stakeholders to analyze 10M+ rental records from with Python & SQL, delivering housing pricing trends/anomalies.
• Built automated dashboards (PowerBI, Mapbox) for end-to-end webapps, increasing user engagement on apps by 22-30%.
• Automated Data warehousing and reporting for large datasets using Snowflake & PowerBI, improving processing efficiency by 20%.

Data Analyst Jul 2022 – Aug 2023
Tatvic Analytics Ahmedabad, India
• Partnered with cross-functional teams (Sales, Marketing, Business operations) to turn insights into strategies and improve KPIs like LTV, churn, and CAC by 17-21% for multiple ecommerce clients.
• Built automated dashboards (Looker, PowerBI) to report ROI and funnel performance, cutting reporting time from 2 days to 5 hours.
• Designed user behavior tracking frameworks (Google analytics 4, Python, BigQuery), improving customer retention by 25-30%.
• Built statistical and financial models with Excel & SQL on sales and revenue data to optimize marketing spending and pricing.
• Designed experimentation frameworks (A/B testing) in Google optimize, optimizing user engagement & conversion by 15%.
• Analyzed and compared marketing channel data from ads platforms (Google Ads, Facebook Ads) to refine targeting strategies.
• Trained clients on GCP to analyze Salesforce / SAS data and execute GTM strategies, delivering 15+ analyses quarterly.

Data Analyst Aug 2021 – Jun 2022
Indian Space And Research Center Ahmedabad, India
• Utilized AWS S3 for efficient storage and retrieval of INSAT-3D satellite data, boosting processing speed by 20%.
• Prepared statistical analysis using SQL/ Excel (VBA, Pivot Tables, Graphs), uncovering 5+ new insights on cloud behavior.
• Created geographic visualizations in Python and reports in PowerBI, aiding future atmospheric research studies.

Research work and Projects

Research Analyst | *Wilfrid Laurier University* [**Link**] Dec 2023 – Jan 2025
• Worked with Physics and CS Dept. and Prof. Sukhjit Sehra on engineering ML features for an end-to-end mapping app in ArcGIS.
• Developed and compared deep learning models (TensorFlow, PyTorch, ArcPy) achieving 95-96% accuracy in road extraction.
• Applied statistical methods and built reports in Looker to show reduced error rates by 4-6% and improved model robustness.
• Used Github to improve Data governance, project documentation, and ensuring data quality throughout the ML workflow.
• Published research at IEEE-ICMI 2025 and contributed to OpenStreetMaps, improving mapping accuracy by 30%

Market Basket Analysis (Instacart's Data) | *Data Analysis and Machine Learning with Python and PowerBI* [**Link**]
• Conducted EDA on 3M+ transactions using Python, uncovering insights that can improve cross-selling opportunities by 15%.
• Applied Association rules algorithms (Pandas, Numpy), providing actionable insights about product bundling for 50K products.

Sales and Pricing Customer Analysis | *Data Analysis with SQL* [**Link**]
• Designed SQL queries using stored procedures, window functions, CTEs and JOINS to analyse YoY growth and sales trends.
• Created 8+ data-driven reports analysing product performance, market penetration, and customer segmentation.
• Generated actionable insights from 1M+ sales data records to support strategic business decisions across multiple markets.

Technical Skills

Languages & Databases: HTML, Python, SQL (MySQL, PostgreSQL), NoSQL, BigQuery, Microsoft Excel / Google Sheets
Data visualization and Reporting: Power BI, Tableau, Looker, Streamlit, Matplotlib, DAX, PowerPoint, Git, Github
Machine Learning & AI: TensorFlow, PyTorch, Keras, NLP, Computer Vision
Big Data & ETL: AWS S3, AWS EC2, PySpark, Docker, Kubernetes, Airflow, Databricks
Quantitative Methods & Statistics: A/B Tests, Regression analysis, Ad-hoc analysis, Causal inferencing, Customer Segmentation
Soft Skills: problem-solving, teamwork, analytical thinking, written and verbal communication, Working in Agile environment