Rajat Dhawan

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WORK EXPERIENCE

Salt River Project (SRP) Remote, AZ
Senior Data Analyst *February 2025 - Present*

- Led the development of Power BI dashboards for Meter Analytics by transforming and visualizing SCADA based energy usage data from 1.5M smart meters utilizing advanced SQL to enable real-time monitoring and reduce operational costs by 18%
- Automated data quality monitoring across 24 large-scale Meter datasets (~3B rows) by building data profiling jobs using Python REST APIs & Collibra DQ, replacing 40 fragmented Tableau reports and manual SQL validations to streamline anomaly detection

On Semiconductors Scottsdale, AZ
Data Analyst *August 2023 – December 2024*

- Monitored and improved data quality for supply chain and sales datasets by developing automated workflows in Python, collaborating with 12 stakeholders to validate and generate error reports for anomaly detection, improving data accuracy by 5%
- Designed and developed comprehensive BI dashboards using Snowflake and Tableau to provide insights on project management performance across business divisions for Quarterly Business Reviews, resulting in an 8% improvement in KPIs like cycle time
- Programmed complex SQL queries & data pipelines utilizing common table expressions (CTEs), joins, & analytical functions to track metrics, & historical trends, collaborating with data engineers to integrate SQL in Airflow creating daily views for dashboards
- Built a Gen AI chatbot leveraging RAG architecture and large language models like OpenAI GPT 4.0 to efficiently retrieve domain-specific SOPs and historical project information, improving program managers' productivity and decision-making

HCL Software Sunnyvale, CA
Data Scientist *December 2022 - May 2023*

- Optimized marketing spends by analyzing channel clicks and sales data using SQL and Python, identifying critical trends and recommending a 23% budget reallocation from low-ROI to high-ROI channels
- Designed and developed interactive dashboards in Tableau to track key metrics such as ROI, CAC, and CPC across marketing channels, enabling stakeholders to make data-driven decisions on budget allocation and performance optimization
- Designed a Customer Identity Resolution method by building a Natural Language Processing pipeline in python utilizing Fuzzy Matching and Cosine Similarity techniques to cluster customer's PII data across 4 digital channels, achieving an accuracy of 88%

Suzuki Motor Corporation Delhi, IN
Data Scientist *July 2018 – July 2022*

- Led $1M project to automate reporting of key performance metrics for EV & Hybrid telematics and ECM data by building ETL pipelines in Python & MATLAB, which enabled team to manage, clean and process CAN/LIN data efficiently
- Improved product metric by 8% and resolved system-level issues by analyzing vehicle performance trends across different traffic patterns and drive modes through weekly and monthly technical Power BI reports to support global teams in hypothesis testing
- Reduced performance report generation time by 10% by developing a user-friendly graphical user interface (UI) in Python & MATLAB, to enable teams to choose projects, analysis task & dates. This led to streamlined processes & increased efficiency
- Achieved 23% reduction in data processing time by migrating analysis workflow to open-source technologies like Python, bringing down cost of analysis by $10K annually

PROJECTS & INTERESTS

Retail Product Recognition using Computer Vision *March 2023 – May 2023*

- Successfully developed convolutional neural network (CNN) DL pipelines using pre-trained models like ResNet50, InceptionV3 and VGG16 to accurately identify ten different retail products, achieving an overall accuracy of 93% on the test set
- Designed a Stream lit interface (UI), utilizing DL model to generate bill for detected items, enhancing customer experience

Fraud Detection using Predictive Analytics *September 2022 – October 2022*

- Performed predictive modeling using Decision Trees and Random Forest classifiers for detecting fraud in Auto Insurance claims, utilizing hyper-parameter tuning methods such as Random Search and Grid Search to optimize machine learning models
- Enhanced training data quality by One Hot Encoding categorical features & handling imbalanced classes (90:10) with SMOTE

EDUCATION

Arizona State University **Tempe, AZ**
MS in Business Analytics (GPA: 4.0) - Distinction *August 2022 – May 2023*
Coursework :Database Management, Predictive & Statistical Analysis, Data Mining, Text Mining, Generative LLMs, Deep Learning

Manipal University **Jaipur, IN**
Bachelor of Technology Electronics & Communication Engineering (CGPA: 7.69) *July 2014 – June 2018*

SKILLS & INTERESTS

Languages : SQL, Python (NumPy, Pandas, Scikit-learn, Plotly, NLTK, SpaCy, Tensorflow, Keras), MATLAB, R

Tools : Advanced Excel, PowerPoint, Snowflake, Tableau, Power BI, AWS, Azure ML Studio, QlikView, MS Office Suite, JIRA

Technical Skills : Data Modeling, Data Warehouse, Data Visualization, Statistics, Business Intelligence, Machine Learning, ETL

Awards : SRP DS Excellence, Quarterly Excellence Award for Euro-EV Project, Beta Gamma Sigma, Lean Six Sigma Green Belt