SATYAM PALKAR

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PROFESSIONAL SUMMARY

Motivated Data Analyst with a Master's in Data Science (UTS) and experience delivering data analysis, dashboards, and reporting to support decision-making. Skilled in SQL, Python, Databricks, Power BI, and Excel, with exposure to Tableau, Amazon Redshift, and Snowflake. Hands-on experience in ETL pipelines, data profiling, and quality assessments on large datasets (1B+ rows). Strong analytical mindset with proven ability to collaborate with stakeholders, document findings, and translate complex data into actionable insights.

SKILLS

- **Data Analysis & Reporting:** KPI Reporting, Dashboard Development (Power BI, Tableau), Ad-hoc Reporting, Excel (Pivot Tables, VLOOKUP, Advanced Functions)
- **ETL & Data Engineering:** Data Profiling, Quality Assessments, Lineage Validation, Impact Analysis, Databricks, SQL (Joins, Aggregations, Window Functions)
- **Programming & Tools**: Python (Pandas, NumPy, Scikit-learn), PySpark, RESTful API Integration, Git
- **Cloud & Warehousing:** Snowflake, Amazon Redshift, Azure
- **Collaboration & Communication:** Stakeholder Engagement, Process Documentation, Cross-Functional Teamwork

PROFESSIONAL EXPERIENCE

Associate Analyst   **September 2023 - January 2024**
Merkle - Dentu Company

- Data-Driven Market Research: Built and maintained Power BI dashboards to track KPIs, improving stakeholder visibility into market performance.
- Data Visualization: Created insightful data visualizations with in-house tools, boosting stakeholder comprehension of market trends.
- Data Management: Assisted in data sorting, cleaning, and forecasting using Excel, leading to a 10% reduction in data processing time.
- Cross-Functional Collaboration: Worked with team members to understand data requirements and deliver actionable insights, enhancing project efficiency.
- SQL is applied to clean and aggregate large datasets, reducing data processing time by 10%.

Team Lead   **January 2023 - February 2023**
Mined Hackathon winner

- Machine Learning Implementation: Created and deployed machine learning models, improving detection accuracy by 27%.
- Advanced Data Analysis: Conducted statistical analysis using customized datasets, uncovering key insights contributing to project success.
- Model Deployment: Built models on Stream lit for beta testing, resulting in enhanced user engagement and actionable feedback.
- Utilized SQL to query and preprocess large datasets for machine learning models.

Assistant Team Leader   **November 2021 - May 2022**
ABU Robotics Competition

- Program Management: Directed a 20-member team in construction of two functional robots, meeting project milestones and deadlines.
- Technical Program Management: Spearheaded integration of OpenCV for object detection, leading to a 25% improvement in robot performance.

- Cross-Team Collaboration: Coordinated efforts across multiple teams, driving completion of complex technical tasks.

KEY PROJECTS

Real-Time Emotion Detection Using EEG and Deep Learning
- Developed a real-time emotion recognition system using Muse 2 EEG headband and Python, applying frequency band analysis (Theta, Alpha, Beta, Gamma, Delta) and signal preprocessing via OSC protocol.
- Designed a WebSocket backend on Render to stream classified emotional states (Relaxed, Focused, Drowsy, Stressed) to a Vercel-hosted Next.js frontend for live dashboard updates.
- Integrated a hybrid BiLSTM Attention model and rule-based logic for emotion classification, enabling real-time mental state monitoring and time-series inference.
- **Tools & Techniques:** Python, WebSockets, BiLSTM-GRU, Attention Mechanism, EEG Signal Processing, Next.js, Render, Vercel.

Legal Document Classification Using T5 and Multi-Agent NLP Architecture
- Developed a multi-agent legal classification system using five domain-specific T5 transformer models for Litigation, Consumer, Competition, Corporate, and IP Law.
- Fine-tuned each T5 model using prompt-based learning and legal corpora to enable accurate text-to-text classification across distinct legal domains.
- Engineered a modular pipeline for document preprocessing, inference routing, and result aggregation, ensuring scalable and interpretable outputs.
- Tools & Techniques: Python, Hugging Face Transformers, T5, Prompt Engineering, Legal NLP, Multi-Agent Systems, Text Classification.

NYC Taxi Trip Prediction Using Machine Learning
- Built an end-to-end machine learning pipeline on approximately one billion NYC taxi trips in Databricks using PySpark and SQL, performing large-scale data cleaning, imputation, and feature engineering.
- Applied supervised learning, predictive modeling, and correlation analysis to capture trip dynamics and improve fare prediction accuracy.
- Combined big data processing (PySpark, Hive, SQL) **with** machine learning (Scikit-learn) to deliver scalable and production-ready predictive insights.
- Tools & Techniques: Python, PySpark, Databricks, Data Visualization, SQL

EDUCATION

Master of Data Science and Innovation   **February 2024 - December 2025**
University of Technology Sydney (UTS)
- Mastered advanced data analysis techniques, including statistical modeling and machine learning.
- Applied theoretical knowledge to real-world problems through hands-on projects and industry collaborations.
- Adopted an interdisciplinary approach, integrating computer science, statistics, and domain-specific knowledge.

Bachelor of Electronics & Telecommunication Engineering   **June 2019 - May 2023**
University of Mumbai
- Acquired deep knowledge in electronics, signal processing, and telecommunications.
- Developed strong problem-solving skills, with practical experience in circuit design and communication systems.