

# Aaryen DSouza

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## TECHNICAL SKILLS

**Data Analysis & Programming:** Python, Java, SQL, KPI Reporting, Trend Analysis, Data Validation, Dashboarding  
**Databases:** Oracle SQL, PostgreSQL, MySQL, MongoDB, PL/SQL  
**Data Manipulation & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI, PySpark, dbt, ArcGIS  
**Dev Tools:** Git, GitHub, Jupyter Notebook, Google Collab, VS Code, DataGrip, PyCharm, IDEA, Postman, Jira, SharePoint  
**Other Skills:** Windows, Linux, Bash Scripting, Microsoft Excel, Google Sheets, Data Wrangling, Reporting Automation

## PROFESSIONAL EXPERIENCE

- Data Analyst Intern** | *Power BI, Oracle SQL, MS Excel, Python, SharePoint* May 2025 – Present  
*University of Windsor* Windsor, Ontario, Canada
- Designed and implemented **data models** and **Power BI dashboards** using **SQL and DAX**, enabling 5+ university departments to access self-service insights on enrolment, retention, and performance metrics.
  - Performed **data extraction, transformation, and quality assurance** on large university datasets (100K+ records) using **SQL and Python**, ensuring accuracy and consistency in reporting.
  - Designed reusable **SQL data models** and **DAX** measures to support recurring dashboards and reduce ad-hoc reporting needs.
  - Automated parts of the reporting pipeline (Excel + SQL), improving delivery time and reducing manual effort across the team.
  - Authored **comprehensive reporting documentation and query guidelines**, cutting onboarding time for new analysts by **25%** and ensuring reproducibility across the OIA team.
  - Delivered insights on historical trends, term-over-term shifts, and KPI variations to support strategic planning and data-driven decision-making.
- Software Engineer** | *Power BI, Oracle SQL, dbt, Python, MS Excel, Bash/Shell Scripting, Java, Linux, Jira* Jul 2022 – Mar 2024  
*Vermont Information Processing* Mumbai, India
- Ensured data integrity by cleaning, preprocessing and validating data in **Oracle SQL** and **MS Excel**, fixing **95%** of data quality issues, and providing detailed analysis reports for price plans, reimbursements and chargebacks.
  - Conducted **trend analysis, variance analysis, and anomaly detection** on high-volume transactional data to identify root causes of discrepancies and reduce recurring issues by **40%**.
  - Automated ETL workflows by implementing **Bash/Shell** scripts and **Excel** automation, optimizing data workflows, and reducing manual interventions by 20%, which led to streamlined data onboarding efficiency.
  - Developed interactive **Power BI dashboards** to visualize key metrics such as revenue trends, chargeback patterns, and reimbursement cycles, enhancing stakeholder decision-making.
  - Built SQL-driven **analytical summaries, quality checks, and verification reports**, improving visibility into key data metrics.
  - Collaborated with business and support teams to interpret data issues, provide actionable insights, and strengthen overall data reliability.

## PROJECTS

- Loan Insights Dashboard** | *Power BI, SQL, Data Visualization, Dashboard Design, Financial Analytics, Git* [GitHub](#)
- Developed an interactive loan data analysis dashboard using **Power BI** and **SQL**, enabling real-time insights into 5+ key financial metrics, borrower behavior, and loan performance, improving data accessibility for decision-makers.
  - Enhanced data visualization and reporting by implementing **10+ KPI** tracking, trend analysis, and loan classification, improving financial strategy planning.
  - Optimized loan performance tracking by improving **data processing** and designing **3 interactive dashboards**, enabling better risk assessment and lending pattern identification.
- Predictive Caching for Web Pages** | *Python, Pandas, Matplotlib, Statsmodels, Scikit-learn, Git* [GitHub](#)
- Created a hybrid AI-driven caching system combining **ARIMA** for time-series forecasting and LLM for contextual analysis, improving cache efficiency and reducing latency in high-traffic scenarios.
  - Processed **1M+** records with automated preprocessing and built ARIMA/Auto-ARIMA models achieving **RMSE 4.41–4.67**, generating **30-day** traffic forecasts.
- Stress Level Prediction Using Machine Learning** | *Python, Pandas, Matplotlib, Seaborn, Scikit-learn, Git* [GitHub](#)
- Developed a stress prediction model for a mobile app by analyzing **20,500+** user behavior metrics, optimizing and training ML models on digital wellbeing data including screen time, game time, app usage, and social media activity.
  - Trained and enhanced model performance by optimizing **Random Forest** and **XGBoost** hyperparameters, increasing classification accuracy to **77%**.

## EDUCATION

- University of Windsor** Windsor, ON  
*Master of Applied Computing (Grade: 88.44%)* May 2024 – Present
- University of Mumbai** Mumbai, India  
*Bachelor of Engineering - Computer Engineering (CGPA: 8.58/10)* Aug 2018 – May 2022