

# Aaryen DSouza

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## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, TypeScript, C, SQL, HTML/CSS

**Databases:** Oracle SQL, PostgreSQL, MySQL, MongoDB, PL/SQL

**Data Manipulation & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI, (Learning) PySpark

**Frameworks:** React, Django, Redux, Node.js, Express, WordPress, Material-UI, Bootstrap, Tailwind CSS

**Dev Tools:** Git, GitHub, Jupyter Notebook, Google Collab, VS Code, DataGrip, PyCharm, IDEA, Postman, Jira

**Other Skills:** Windows, Linux/Unix (Ubuntu, CentOS), Shell Scripting, Microsoft Excel, Google Sheets

## PROFESSIONAL EXPERIENCE

**Software Engineer** | Oracle SQL, MS Excel, Python, 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.
- Reduced issue resolution time by 40% for 100+ customer-reported issues by performing in-depth root cause analysis (RCA) on legacy app server and Oracle database, leading to faster issue identification and customer satisfaction.
- Automated ETL workflows by implementing **Bash/Shell** scripts, optimizing data workflows, and reducing manual interventions by 20%, which led to streamlined data onboarding efficiency.
- Standardized data integration and system configuration **documentation** by creating clear process guides which reduced onboarding time for new team members by **25%** and improved cross-team collaboration.

## PROJECTS

**Loan Insights Dashboard** | Power BI, SQL, Data Visualization, Dashboard Design, Financial Analytics, Git Jan 2025  
[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 Nov 2024  
[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.
- Automated data preprocessing for 1M+ records, implementing normalization, and missing value imputation leveraging **Python** and **Pandas**, to guarantee reliable data for predictive models, and conducted exploratory data analysis (EDA) on 500K+ web traffic data to identify trends and visualize key insights with **Matplotlib**.
- Built and optimized ARIMA models to forecast future page views, achieving high accuracy with RMSE values of **4.41** for ARIMA and **4.67** for Auto-ARIMA, and generated forecasts for the next 30 days.

**Stress Level Prediction Using Machine Learning** | Python, Pandas, Matplotlib, Seaborn, Scikit-learn, Git Nov 2024  
[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.
- Refined data quality by implementing data preprocessing, encoding, and normalizing 7+ numerical features utilizing **Python** and **Pandas**, ensuring high-quality inputs for predictive modeling.
- 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: 85.53%) May 2024 – Present

**University of Mumbai** Mumbai, India  
Bachelor of Engineering - Computer Engineering (CGPA: 8.58/10) Aug 2018 – May 2022