

# SAGARIKA SARDESAI

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## ABOUT ME

An MS Data Science student with prior experience in Business Analysis and Software Engineering, where I extracted meaningful insights for informed decision-making. Actively searching for Data Analysis/Science roles. Some of my relevant coursework: Data Management for Data Science, Probability & Statistics, Statistical Models, Machine Learning & Fraud Analytics.

## EDUCATION

### MS, Data Science

UC San Diego, CGPA 3.90

San Diego, CA

Sep 2022 - Jun 2024

### Btech, Computer Science and Engineering

Vellore Institute of Technology, CGPA 8.61

Vellore, India

Jul 2016 - Jun 2020

## EXPERIENCE

### Data Science Research Assistant

UC San Diego

San Diego, CA

May 2023 - Nov 2023

- Ensured **data accuracy by 5% through cleaning, exploration (pandas, numpy), and visualization (matplotlib, seaborn)** in the Data Quality Report, revealing significant patterns and trends.
- Utilized **exploratory data analysis, statistical analysis, and NLP techniques (nltk, transformers)** such as VADER and RoBERTa (LLM) to measure sentiments and derive meaningful conclusions about consumer behavior.
- Derived **valuable insights into consumer attitudes and decision-making** regarding End-of-life choices.

### Business Analyst

Credit Suisse

Pune, India

May 2021 - Jun 2022

- Analyzed 80,000+ production and test data records** sourced from company databases and software using **SQL and Advanced Excel** for defect mitigation.
- Performed ad-hoc analysis** to support business strategy, **reported & delivered actionable insights to cross-functional teams**.
- Identified root causes, patterns, and trends** by conducting 300+ SWIFT CSDR Test Trades (Hold & Release), resulting in a 70% decrease in defects and unveiling new product development areas.
- Created 300+ **functional & user acceptance test (UAT) Quality Assurance (QA) B2B scenarios** in HP-ALM.
- Led defect management processes to streamline the SWIFT trade lifecycle business processes.

## PERSONAL PROJECTS

### Investment Scope of SBIR Awarded Companies

- Conducted in-depth **analysis of the SBIR Awarded Companies containing 165,000+ records using Python and PostgreSQL**, revealing patterns in industry sectors and year-wise award amounts across US agencies and branches.
- Improved **data accuracy by 20% by cleaning methods including data type adjustments, keyword extraction, and imputation**.
- Established relationships** between US departments and agencies using **Cypher (Neo4j) graphs**, to enhance analysis context.
- Web scraped (Beautiful Soup, Selenium Webdriver) recent news (Python data pipeline for ETL)** about relevant companies, stored in **MongoDB** for further reference.

### Covid19 Data exploration and Visualization

- Utilized **PostgreSQL to analyze** the OWID Covid-19 Dataset of 85,000+ rows, **identifying patterns in global infection and mortality counts, country-specific statistics, and regional peak counts**.
- Forecasted infection numbers** for highly affected countries and **presented insights visually with Tableau** to aid decision-making.

### Predictive Analysis for Detecting Credit Card Transaction Fraud

- Utilized **supervised machine learning** to detect credit card fraud, resulting in estimated savings of 21M USD with a 3% FDR.
- Tuned, trained, tested and **compared performance of Logistic Regression, Decision Trees, Random Forest, LGBM, LGBM with SMOTE, MLP classifier, Gradient Boosting Classifier, CatBoost, XGBoost, SVM**.
- Analyzed 90,000+ credit card transactions, conducting **data exploration, cleaning, and visualization (Matplotlib, Seaborn)** to **uncover insights**.
- Feature engineered ((pandas, numpy, scikit-learn) over 1000 variables and selected (mlxtend, lightgbm)** from existing dataset fields for comprehensive analysis.
- Employed the Kolmogorov-Smirnov statistical test to **feature select 20-25 relevant variables reducing training time by 30%**, improving model accuracy and fraud detection capabilities.

## TECHNICAL SKILLS

Languages: **SQL, Python**, R, Cypher, PySpark, SparkSQL

Data Vis and BI Tools: **Tableau, Qlik Sense, Advanced Excel (Advanced Formulas, XLOOKUP, VLOOKUP, Pivot Tables, Stat tools, Macros, Charts)**

Cloud Technologies: **AWS (Redshift, Glue, S3)**

Other: **Jupyter Notebook, Google Colab, Anaconda, Git (Version Control), Jira, Confluence**