Asmita Deshpande

# Professional Summary

# Dynamic professional with a Master of Science in Information Systems and a Bachelor of Technology in Computer Engineering, actively seeking opportunities as a Data and Business Analyst. Proficient in leveraging advanced data analysis techniques and visualization tools such as Tableau and Power BI, combined with experience in cloud platforms like AWS and Azure, to deliver actionable insights, drive strategic business decisions, and enhance operational efficiency.

# Education

## University of Maryland Baltimore County, Baltimore, MD

Master of Science in Computer Science May 2024

**Courses: IS620** Advanced Database Project, **IS636** Structured System Analysis and Design, **IS733** Data Mining, **IS651** LAN Management

**IS603** Decision Making Support System**, IS734** Data Analytics for Cybersecurity **, ENMG650** Project Management Fundamentals

## Cummins College of Engineering for Women, Pune

Bachelor of Technology in Computer Engineering. May 2020

# Skills

**Data Science & Analytics :**Data Analysis, Data Visualization (Tableau, Power BI, Google Data Studio), Data Mining, Statistical Analysis,

Exploratory Data Analysis (EDA), Business Intelligence.

**Data Engineering :** Data Pipelines, ETL, Cloud Data Processing (AWS, Azure), Airflow, Google Analytics.

**Programming Language :** Python, JavaScript, SQL, HTML/CSS, PL/SQL.

**Project Management :** Scrum Methodologies, Agile Frameworks, Collaboration Tools (Jira, Confluence, Git, Artifactory).

# Work Experience

**Data Analyst at DXC Technology, India**. July 2020 – July 2022

* Developed automated Python scripts to optimize workflows, achieving a 25% improvement in customer satisfaction rate.
* Designed and implemented dashboards using Tableau and Power BI, increasing operational efficiency by 25%.
* Collaborated with Atlassian support to resolve Jira migration issues, enhancing functionality performance by 30%.
* Managed tools like Jira, Confluence, and Artifactory, resolving 1000+ tickets and simplifying workflows for improved productivity.
* Conducted data-driven performance reviews and shared insights with senior management, driving informed decision-making and continuous improvement initiatives.

**Student IT Project Assistant, University of Maryland Baltimore County, Baltimore, MD** Jan 2023 – May 2024

* Automated routine data processing tasks using Python, SQL, and Snowflake, reducing manual effort by 40% and improving data accuracy across 5+ departments.
* Optimized Tableau dashboards for financial KPI’s increasing data visualization efficiency by 30% and providing insights for university stakeholders.
* Utilized Jira to manage project workflows and track milestones, ensuring timely delivery of key IT projects.
* Conducted in-depth data analysis using Excel, and Snowflake, identifying trends that influenced strategic decisions and enhanced resource allocation.
* Provided system-level support for IT infrastructure and collaborated with Confluence for documentation and knowledge sharing.

**Summer Data Intern at StarViso, India** May 2019 – July2019

* Administered and optimized relational databases using **SQL**, implementing indexing, query optimization, and normalization to improve performance by **30%**
* Enhanced digital marketing campaigns and analyzed data, enhancing campaign performance by 15%.
* Extracted and processed datasets from **AWS RDS** and **S3** for SEO analytics, enhancing insights into user engagement and content performance.
* Collaborated on implementing privacy measures to protect sensitive data while enabling secure and compliant analytics.

# Projects

## Automated Weather Data Ingestion and Analytics Pipeline (AWS and Snowflake)

* Designed a solution using AWS Lambda for scheduling data loads from the Weather API, which stored the data in DynamoDB.
* Set up DynamoDB Streams to trigger another Lambda function, which streamed the data to Amazon S3
* Configured AWS STS (Security Token Service) to establish trust and securely transfer the data from S3 to Snowflake.
* Utilized Snowflake to store and organize the data into tables for further analysis.

## Forex Data Visualization

* Deployed a comprehensive website for visualizing FOREX data, using JavaScript, Python, and HTML with interactive maps via the Leaflet library to represent relationships.
* Parsed and showcased real-time data using SQLite and live bar charts for enhanced user engagement.
* Employed NumPy and Pandas for data organization and filtering, ensuring meaningful insights for users of varying experience levels.

## Serverless Web Application on AWS

* Designed and implemented a serverless web application using AWS Lambda, DynamoDB, and S3 to perform CRUD operations.
* Configured DynamoDB to manage data storage and implemented Lambda functions for seamless backend logic execution.
* Hosted static files (HTML, CSS, JavaScript) on Amazon S3 and optimized content delivery using CloudFront distribution for low-latency access.
* Integrated Route 53 for domain routing and ensured scalability and fault tolerance using AWS's serverless architecture.
* Enhanced skills in cloud computing, serverless technologies, and end-to-end solution deployment on AWS.

## Credit Card fraud detection (end-to-end data machine learning project hosted on AWS)

* Learned the AML/BSA regulations to find anomalies.
* Built a Credit Card Fraud Detection system using Logistic Regression, Random Forest, XGBoost, and Genetic Algorithm for model selection.
* Applied PCA for dimensionality reduction and handled imbalanced data to enhance model accuracy.
* Engineered features to improve model performance and evaluated using precision, recall, and F1-score achieving an accuracy of 90%.
* Exercised SHAP (Shapley Additive explanations) to identify the most important features.
* Operationalized the model using AWS Elastic Beanstalk for application deployment, Amazon S3 for data storage, and AWS Lambda for real-time fraud predictions.

## PWC Customer Forecasting

* Engineered a classification model using an Artificial Neural Network (ANN) to predict customer response in a bank's marketing campaign, utilizing age, job, and loan status features.
* Pre-processed data by handling missing values, applied one-hot encoding, and performed feature engineering to enhance model performance.
* Implemented LIME (local interpretable model-agnostic explanations) to interpret model predictions, identifying call duration as the most important feature influencing customer response.
* Tuned the ANN model’s architecture and hyperparameters, achieving 85% accuracy, which improved campaign targeting and Streamlined marketing costs.

# Certifications

* Data Science Associate (Data Camp) - ID- DSA0012602902600
* AWS Machine Learning Specialty on Udemy ID- UC-e850a23b-f54b-459a-90ad-e72569ff65fe