

Nandini Ethirajulu

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EDUCATION

University at Buffalo, The State University of New York

Buffalo, NY

Master of Professional Studies – Data Sciences and Applications

Relevant course work: Programming and Databases, DBMS, Numerical Analysis, Probability and Data Analysis, Statistical Data Mining, Machine Learning, Cybersecurity Privacy and Ethics.

Madras Christian College

Chennai, TN, India

Bachelor of Computer Applications

EXPERIENCE

Deloitte USI Consulting

Chennai, TN, India

Analyst

June 2021 - July 2023

- Spearheaded the development of 200+ advanced SSIS ETL packages for a US State Government project, ensuring seamless ETL of data from the source Application Database to an intermediate Staging Layer Database with a focus on Data Integrity.
- Architected and optimized ETL packages to facilitate both full data loads during initial runs and highly efficient incremental data loads during subsequent daily runs, resulting in remarkable improvement in ETL performance and eliminating data redundancy.
- Crafted intricate Oracle PL/SQL stored procedures to extract and transform data for over 200+ customized client reports and dashboards. Developed reusable ETL packages for executing these procedural scripts at diverse reporting frequencies (Daily, Monthly, Annual), and leveraging Tableau for sophisticated data visualization, increasing user experience by 30%.
- Engineered a robust restart and error tracking mechanism across the ETL process, ensuring swift identification and resolution of data discrepancies. This mechanism facilitated the targeted rerunning of errored ETL packages, thereby achieving a 90% reduction in ETL process downtime. Additionally, automated archival processes were implemented to boost operational efficiency and ensure compliance, preserving data integrity and accessibility at all times.

Deloitte USI Consulting

Chennai, TN, India

Associate Analyst

August 2019 - May 2021

- Led the extraction and preprocessing of data from diverse sources including application systems, files, and databases for a critical Legacy System Conversion initiative. Standardized data format, structure, and quality, achieving data accuracy and ensuring compliance with industry standards.
- Implemented SSIS ETL jobs and procedural scripts to efficiently stage, integrate, and transform data, resulting in a 50% reduction in data processing time and minimized information loss to less than 0.2%. Completed complex data transformations ahead of schedule to meet project deadlines.
- Utilized Salesforce's bulk data loading utility to seamlessly migrate transformed data into the target database, improving operational efficiency and maintaining high data integrity and accessibility throughout the conversion process.

PROJECTS

Grocery Store Transactional Data Analysis and Association Rule Mining

February 2024 – April 2024

Conducted an analysis of grocery store transactional data using R, focusing on item frequency visualization and association rule mining. Identified top association rules by confidence and lift and developed recommendations to increase sales through strategic bundling with frequently associated items.

Market Basket Analysis for RM Customer Purchase Behavior

February 2024 – April 2024

Performed a market basket analysis using R on RM's loyalty card data. Developed a binary transaction matrix, applied the Apriori algorithm to discover association rules, and provided strategic recommendations for optimizing pricing, display layouts, and coupon discount impacts.

DBMS Project

September 2023 – December 2023

Designed and implemented a comprehensive Oracle SQL-based DBMS for "Bank of Buffalo," managing customer data, transactions, loans, insurance, accounts, bank employees, and branches. Utilized DDL, DML, and SELECT statements to ensure efficient data management and retrieval.

Online Food Ordering System

January 2019 - April 2019

Developed a .NET application using ASP.NET for front-end and C# for business logic. Integrated MS SQL Server for efficient data management and tailored CSS styles to optimize user experience and streamline food ordering processes.

TECHNICAL SKILLS

Programming Languages:

Python, R, Visual Basic, Oracle PL/SQL, Java

Data Analysis and Modeling:

Machine Learning, Statistical Data Mining

Data Management and Analytics:

Oracle, MS SQL Server, SSIS ETL, Data Warehousing

Web Development:

HTML, CSS, JavaScript

Tools:

Visual Studio, Microsoft Office Suite

Visualization:

Tableau, Power BI