

AISHWARIYA ALAGESAN

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EDUCATION

NORTHEASTERN UNIVERSITY

Master of Science in Data Analytics Engineering (GPA – 4.0)

Boston, MA

Expected May 2025

Key courses: Data Management for Analytics, Foundations of Data Analytics Engineering, Data Mining, Computation and Visualization

ANNA UNIVERSITY

Bachelor of Engineering in Electronics and Communication Engineering

Chennai, IN

Apr 2020

Key courses: Probability and Random Processes, Database Management Systems, Python Programming

TECHNICAL SKILLS

Programming Languages: Python (Pandas, NumPy, Matplotlib, Scikit-learn, Seaborn, TensorFlow, SciPy), SQL, R, Java, C/C++

Analytics Tools: Tableau, MS Excel (Pivot Tables), Jupyter, Power BI, MS Office, Google Colab, Flourish, Alteryx

Databases: MySQL, Oracle, SQL Server, MongoDB, Amazon Web Services (S3, EC2), ETL (Talend Open Studio)

Machine Learning: Regression, Classification, Decision Trees, SVM, Hypothesis Testing, Clustering, Neural Networks

Other Tools and OS: Jira, Atlassian, Git, Bitbucket, Microsoft PowerPoint, Microsoft Word, Windows, Linux

WORK EXPERIENCE

Temenos Pvt Ltd

Chennai, IN

Product Engineer | SQL | Power BI | Jbase |

Jan 2021 – Jul 2023

- Resolved **critical product defects** using Jbase within tight deadlines, collaborating with cross-functional teams, resulting in a 22% decrease in client-reported issues and increased product reliability.
- Developed 12+ **PowerBI** visualizations within a cohesive dashboard, highlighting key performance indicators (**KPIs**) and leveraging **DAX** calculations, to analyze **customer transaction data** for usage pattern identification.
- Enhanced performance by 28% with precise **database indexing** in **SQL**, ensuring swift data retrieval and significantly improving the overall user experience.
- Conducted **testing** on new product features, analyzing client feedback and usage metrics, resulting in a 15% improvement in feature adoption and overall product usability.
- Led the integration of new **financial functionalities**, coordinating with development teams, resulting in a 25% increase in product feature adoption and customer satisfaction.
- Collaborated with clients, crafting tailored **SQL** solutions and **Local APIs**, resulting in a 17% increase in client satisfaction ratings.

Cognizant Technology Solutions

Chennai, IN

Programmer Analyst Trainee | SQL | Tableau | Python |

May 2020 - Oct 2020

- Contributed to software development lifecycle (SDLC) processes, utilized **Excel** for documentation, improving task organization and team efficiency, and enhancing project visibility by 20%.
- Implemented automated testing with **Selenium** in **Python**, reducing manual effort by 30%, and ensuring web application reliability.
- Performed data analysis tasks with **MySQL** and **Tableau** to support insightful visualizations, aiding data-driven decision-making.

ACADEMIC PROJECTS

Fitlife Hub Database System

Sep 2023 - Dec 2023

- Designed a Fitness Monitoring System using **MySQL**, **Python**, and **Neo4j**, adhering to relational database principles.
- Employed data modeling techniques like ER modeling, UML, Normalization, and Hierarchical Data Modeling.
- Executed stored procedures, joins, CTE, functions, and triggers, enhancing the system's efficiency and query execution time by 15%.

EEG Classification Model

Nov 2023 - Dec 2023

- Developed an EEG classification model for epilepsy diagnosis in Python using **sklearn** libraries, managing missing data, reducing noise, and extracting features from time series and discrete domains, streamlining 88% of the process.
- Deployed **neural networks with TensorFlow and Keras** achieving 85% RNN and 92% CNN accuracy, contributing to medical science by creating an epilepsy-related neural pattern identification tool.

Predictive Modeling of CO2 Emissions in the Automotive Industry Using Machine Learning

Mar 2024 - Apr 2024

- Leveraged machine learning models like **Linear**, **Lasso**, **K-Nearest Neighbors**, and **Random Forest** Regression utilizing Python libraries such as **scikit-learn** and **pandas** to predict CO2 emissions, yielding outstanding precision with 92% R-squared values.
- Employed **hyperparameter optimization** techniques such as **Randomized Search** and **Grid Search** to fine-tune model performance, demonstrating proficiency in optimizing model parameters for improved predictive accuracy to around 97%.

Geospatial Analysis and Visualization: Exploring National Parks, Layoffs, and Disease Prevalence

Mar 2024 - Apr 2024

- Employed geospatial analysis methodologies to visualize and analyze geographic data about national parks, corporate layoffs, and disease prevalence across various countries, using **Tableau** for interactive and insightful data visualization.

AWARDS AND ACHIEVEMENTS

- Received a **spot award** for consistently demonstrating the **Temenosity Principle of Responsibility**, highlighting dedication and enthusiasm in completing critical tasks before committed deadlines.