# Jerry Vishal Joseph Arockiasamy

+1 (571) 774-0022 - jjosepha@gmu.edu - linkedin.com/in/jerryvishal - Fairfax, VA

## Professional Summary

Dynamic Data Analyst with a strong track record of improving operational efficiency and data management through advanced analytics and automation. Proficient in SQL, Python, and Tableau, with hands-on experience in building robust ETL pipelines, conducting predictive analytics, and delivering actionable insights through interactive dashboards.

## Experience

**Mentored Minds** - Remote

Data Analytics Intern · Mar. 2023 – Jun. 2023

- Automated ETL Processes: Developed Python and SQL scripts to streamline data extraction, transformation, and loading (ETL), significantly enhancing workflow efficiency.
- Data Visualization: Transformed complex datasets into insightful, visually compelling reports and dashboards, enabling data-driven decision-making for clients.
- Data Integrity & Communication: Conducted thorough data validation and cleaning to ensure data accuracy, and effectively communicated insights through impactful data visualizations for stakeholders.

**Tata Group** - Remote

Data Analytics Intern · Oct. 2022-Jun. 2022

- Data Cleaning & Transformation: Extracted raw data from Excel and conducted comprehensive cleaning, transformation, and normalization processes to ensure data integrity for accurate analysis.
- Advanced Data Modeling: Imported pre-processed data into Power BI, utilizing DAX functions and Power Query for sophisticated data modeling and complex calculations.
- Dashboard Design: Designed dynamic, interactive dashboards and reports customized to client requirements, facilitating real-time insights.

**Amazon - Ecommerce,** Bangalore, India

Data Analyst · Dec. 2021 – June 2022

- Data Pipeline Automation: Designed and automated scalable SQL-based data pipelines integrated with python, improving real-time analysis capabilities and reducing data processing time by 25%.
- Advanced Dashboard Development: Created dynamic Excel dashboards incorporating SQL queries and VBA scripting, enhancing operational planning efficiency and reducing manual workload by 30%.
- Data Mining & Statistical Analysis: Conducted deep-dive data mining using SQL and SAS, delivering actionable insights that improved process efficiency by 15% and supported strategic business initiatives.

## Projects

**Amping Up Insights: Exploring Electric Utility Rate Trends** | Python, Tableau, Chi-squared, Random Forest, K-Means Clustering | Dec 2024

- Implemented K-Means clustering models to identify cost-effective utility providers and reveal significant rate trends across industrial, commercial, and residential sectors and developed predictive models using multiple ML models to pinpoint revenue drivers.
- Created interactive dashboards in Tableau and Power BI, effectively visualizing findings related to rate disparities, ownership influences, and socioeconomic impacts on energy consumption.

**Sentiment Analysis in Customer Reviews** | AWS, Databricks, PySpark, Python | Apr 2024

- Conducted extensive exploratory data analysis (EDA) using AWS Glue DataBrew, identifying key trends and anomalies that enhanced data quality and accuracy by 25%.
- Performed sentiment analysis and topic modeling on large-scale review datasets using PySpark in Databricks, utilizing NLTK packages, VADER lexicon, and LDA (Latent Dirichlet Allocation) to uncover actionable insights.

**Experimental Approach to Detect Autism** | Power BI, Node-RED, C, Python | June 2020

- Developed an innovative toy embedded with IoT sensors to collect behavioral data for autism assessment, achieving a 50% improvement in diagnostic accuracy compared to conventional methods.
- Engineered an AI-driven diagnostic model using machine learning algorithms to analyze behavioral patterns, supporting more accurate predictions and enabling tailored intervention plans and integrated multi-sensor into a centralized pipeline using python and Node-RED.

## Education

**George Mason University** - Fairfax, VA · Aug. 2023 – Exp. May 2025

Master of Science in Data Analytics Engineering |CGPA: 3.82 | (Machine Learning, Big Data Analytics, Statistical Methods, Data Mining)

**Loyola ICAM College of Engineering and Technology -** Chennai, India. · Aug. 2017 – May 2021

Bachelor of Engineering in Electronics and Communication

## Skills

**Data Analysis Tools:** Python, R, SQL, Tableau, Power BI

**Machine Learning:** Linear Regression, Logistic Regression, Decision Trees, Clustering, Random Forest

**Programming**: Python, SQL, R, C

**Big Data:** Databricks, AWS, Azure

## Certifications

- Professional Certificate on Google Data Analytics (Coursera, 2022)
- Hands-on Project: Data Visualization for Business Insights (Forage/Tata, 2022)
- Learning Excel: Data Analysis (LinkedIn, 2022)