Tarun Barigala

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Summary

Data Analyst–focused graduate with hands-on experience in Python, R, SQL, and Tableau. Skilled in exploratory data analysis, data cleaning, visualization, and regression techniques to generate actionable insights. Google Data Analytics certified and experienced in building data-driven dashboards and analytical solutions.

Skills

Programming & Analytics:	Python (Pandas, NumPy), R, SQL, C
Data Analysis:	Exploratory Data Analysis (EDA), Data Cleaning, Data Wrangling, Statistical Analysis, KPI Reporting
Visualization:	Tableau, Matplotlib, Seaborn, Interactive Dashboards, Data Storytelling
Analytics Techniques:	Time-Series Forecasting (SMA, Exponential Smoothing), Regression Analysis, Sensitivity Analysis
Databases:	MySQL, Relational Database Design, Data Modeling
Tools:	Excel, Google Sheets, Jupyter Notebook, RStudio, Git/GitHub, EN-ROADS

Experience

Data Analyst Intern — Jan 2024 – Apr 2024
BrainOvision Solutions Pvt. Ltd.

- Performed exploratory data analysis (EDA) on structured datasets using Python (Pandas, NumPy) to identify trends and patterns.
- Cleaned and transformed raw datasets (1,000+ records) improving data quality and reducing inconsistencies by 25%.
- Built basic regression and classification models to evaluate predictive accuracy and support analytical insights.
- Developed data visualizations using Matplotlib and Seaborn to communicate findings to project teams.
- Generated analytical reports summarizing key KPIs, contributing to data-driven decision making.

Python Intern (Training cum Internship) — Jun 2022
ByteXL India Pvt. Ltd., Hyderabad

- Completed intensive training on Data Structures using Python, implementing arrays, linked lists, stacks, queues, and trees.
- Solved 50+ structured coding problems to strengthen algorithmic thinking and time complexity optimization.
- Improved problem-solving efficiency by applying optimized logic, reducing execution time of solutions by up to 30%.
- Developed modular Python programs following Object-Oriented Programming (OOP) principles.
- Collaborated in guided coding sessions and code reviews to improve debugging and logical accuracy.

Projects

Event Registration & Management System (Python, MySQL) — Git

- Developed Python (CustomTkinter) and MySQL-based system automating event creation, registration, and attendee tracking.
- Implemented secure role-based access for admins, coordinators, and attendees.
- Designed normalized MySQL schema (6+ relational tables) ensuring data integrity and scalability.
- Built reporting modules for attendee counts and summaries, reducing manual processing by 80% and supporting 10× higher volume.

Global CO_2 Emissions & Clean Energy Trends (Tableau)

- Built interactive dashboard analyzing global CO_2 emissions, renewable share, EV adoption, and GDP trends.
- Analyzed 20+ years of country-level data comparing U.S., Germany, and Norway.
- Identified renewable penetration had stronger long-term emission reduction impact than EV adoption alone.

Netflix Content Analysis & Trends Dashboard (Tableau)

- Built interactive dashboard analyzing 8,000+ Netflix titles across genre, release year, country, ratings, and duration.
- Cleaned and transformed metadata handling missing values and normalization.
- Analyzed 20+ year growth trends identifying shifts in genre popularity and regional production.
- Designed dynamic filters and calculated fields enabling multi-dimensional exploration.

VDI Usage Trends & User Behavior Analysis (R) — Git

- Analyzed VDI usage data for 3,000+ users using R to study login frequency, session duration, and peak usage periods.
- Performed data cleaning, aggregation, and time-series analysis to identify daily and weekly demand patterns.
- Generated insights to support capacity planning and infrastructure optimization.

Server Logs & Application Utilization Analysis (R)

- Processed and analyzed large-scale server and application logs evaluating runtime behavior.
- Ranked applications by usage identifying high-frequency users and underutilized systems.
- Delivered recommendations improving system performance and resource allocation.

The 2-Degree Blueprint – Climate Policy & Emissions Modeling — Git

- Modeled global greenhouse gas emission scenarios through 2100 using EN-ROADS simulator.
- Applied time-series forecasting and regression to project trajectories.

- Conducted sensitivity analysis on renewables, electrification, carbon pricing, and deforestation policies.

Speaker Recognition Using MFCC-BPNN-HHO

- Developed speaker recognition system using MFCC feature extraction and Backpropagation Neural Network.
- Optimized weights using Harris Hawks Optimization improving convergence.
- Trained on 100 utterances from 10 speakers (70/30 split).
- Achieved 98% accuracy, 90% precision, 90% recall, and 98.8% specificity outperforming baseline models.

Certifications

Google Data Analytics Professional Certificate	Feb 2026
Cloud Computing — NPTEL	Nov 2023
AWS Academy Graduate — AWS Academy Cloud Foundations	Feb 2023

Education

Central Michigan University — May 2026
M.S. Information Systems
GPA: 3.88
Coursework: Information Systems, Python, SQL, Systems Analysis, Project Management, Tableau, SAP, Excel, R, Capstone Project