JAYA PRAKASH NARAYANA RAAVI

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TECHNICAL SKILLS

Programming Languages	:	Python3, R Programing, Java Script, Power Query.
Web Dev & Databases	:	HTML5, CSS3, D3.JS, React, MySQL, MongoDB.
Technical Skills	:	Data Engineering, AWS, Advanced-Statistics, Data analytics, GIS tools, Application Troubleshooting, Selenium, Playwright, Machine Learning, Scripting, Vissim.
Software Tools	:	Git, MySQL Servers, Microsoft Excel, Tableau, Power BI, Jira, Confluence.
Personal Skills	:	Communication, Teamwork, Creativity, Leadership.

EXPERIENCE

Software Engineer (Data Analyst) at Herff college of engineering, University of Memphis   Nov 2023 – Sept 2024

- Cleaned and processed over 2M records, improving data accuracy by 95% and reducing errors by 80%.
- Implemented a dashboard for more than 20 planners that visualized population, household, employment, and land usage data across Tennessee regions using R and several libraries.
- Analyzed datasets to identify patterns and trends, providing actionable insights that enhanced research project outcomes.
- Constructed 10+ dashboards and visualizations using Power BI and Tableau, effectively communicating key findings.
- Python and MATLAB were used to automate 70% of data processing tasks, increasing output and reducing labor hours.
- Employed VISSIM scripting for traffic data simulation and modeling for 30+ miles, improving accuracy by 25%.
- Collaborated with research teams to understand data requirements, translating them into insightful analytical reports that informed decision-making.

Business Intelligence Developer at Innovapath, INC   Jul 2021 – Nov 2022

- Designed and maintained web-based dashboards using React.js, making sure they are cross browser compatible.
- Built interactive data visualizations using D3.JS and Power BI, making the dashboards easy to understand and use.
- Developed RESTful APIs using Node.js and Express.js, connecting them to MongoDB for storing and retrieving data.
- Used Git for version control and participated in Agile processes like sprint planning and daily meetings.
- Worked closely with developers, data analysts, and designers to add new features and improve existing ones, contributing to code reviews and discussions.

PROJECTS

Database Design for Referral Management   Mar 2024 - Jul 2024

- Created and constructed a MySQL database to facilitate client follow-ups and referral management.
- Automated the entire data collection and processing process using Python, reducing manual work.
- Composed real-time dashboards in Power BI to give team members clear insights into referral trends and follow-up results, helping them make better decisions. Improved the speed of database queries by optimizing how data is retrieved.
- Worked with the team to ensure data security and meet project needs.

Tennessee Statewide Land Use Dashboard   Feb 2024 - Apr 2024

- Designed an interactive R-based dashboard to analyze and visualize Tennessee's population and land use data.
- Conducted extensive data wrangling, merging geographic shapefiles with land-use datasets to ensure consistency.
- Produced thorough land, home, employment, and population visualizations for different regions and MPOs, enabling insights based on data.
- Implemented dynamic filtering on specific regions, categories, demographics, enhancing decision-making capabilities.

Visualizing public transport preference in Tennessee State in Power BI   Nov 2023 - Dec 2023

- Integrated and transformed diverse datasets, including survey results, demographic information, and transport usage statistics, to create a comprehensive dataset for analysis.
- Designed and implemented calculated measures and custom visualizations in Power BI using DAX, optimizing data models for efficient querying and real-time analysis of public transport trends.
- Generated interactive visualizations in Power BI, enabling users to explore trends in public transport preferences across different demographics and regions.

EDUCATION

Master of Science, University of Memphis, Tennessee, USA   CGPA (3.88 / 4)   Jan 2023- Dec 2024
Master's in data science with a minor in Bio-statistical learning

CERTIFICATIONS

- **Published a research paper in Transportation Research Board (TRB)** Hybrid Optimization of Wiedemann 99 Car-Following Parameters for Accurate Calibration of Microsimulation Model for Tennessee's Peak-Hour Freeway Traffic.
- Delivered an article at an **IEEE conference**. At the Tirunelveli conference, a research paper on **whale optimization algorithm-based loss minimization** through distribution network reorganization was published.
- **IBM Data Science Basics** covers the fundamental aspects of data science, various roles within the field, the data analysis process, big data, machine learning, deep learning, and artificial intelligence.