Praveen Satya Rajamanickam Vijayaraghavan

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# SUMMARY\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Passionate about measuring campaign performance, analyzing audience trends, and developing scalable data solutions for communications and marketing teams. Data Analyst with 3+ years of experience in SQL, Python, NLP, and BI tools for social media analytics and audience insights. Skilled in ETL, social listening, and predictive analytics, optimizing reporting and automation.

# EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The University of Texas at Dallas** Aug 2023 – May 2025

*Master of Science in Business Analytics and Artificial Intelligence (3.93 GPA)*

## Awards: 2x Dean’s Excellence Scholar. Awarded to the top 5% of students for outstanding academic performance.

## Relevant Coursework: Business Analytics with R, Data Visualization, Big Data, Advanced Statistics, Predictive Analytics, Prescriptive Analytics, Machine Learning, Econometrics & Time Series Analysis

**BITS Pilani** Aug 2016 – Sept 2020

*Bachelor of Engineering, Manufacturing Engineering*

# WORK EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Data Analyst Intern, Copart Inc. *May 2024 – May 2025*

## Developed an interactive Tableau dashboard to track Key Performance Indicators (KPIs), optimizing operational visibility and reducing subhauler commission costs by $15,000 within 3 months.

## Enhanced BI reporting efficiency by optimizing 20+ dashboards using Tableau Optimizer and SQL best practices, enhancing user experience and improving dashboard load time for 10+ departments from 10 to 2 seconds.

## Created a yard productivity dashboard to track vehicles sold/received per headcount, identifying underperforming yards and driving a 15% efficiency improvement across 200+ locations.

## Implemented anomaly detection using time series forecasting (ArimaPlus model) & Google BigQuery, reducing issue detection time from 3 days to 1 hour, preventing $10,000+ in revenue loss per quarter.

## Collaborated with team members using cloud-based version control (GitHub) to maintain Airflow DAGs and Python scripts for anomaly detection and notification, ensuring seamless collaboration between 20+ developers in the analytics and engineering teams.

## Data Analyst, Capgemini *Sept 2020 – Jun 2023*

## Analyzed insurance claims data using SQL and data wrangling techniques to identify root causes of faulty reimbursements, leading to system enhancements that saved clients $30,000.

## Automated ETL workflows using Python and SQL, streamlining periodic revision of business criteria for car rentals and saving 25 hours per month for the clients.

## Created interactive Power BI dashboards and Excel reports to track team performance, enabling effective sprint planning and reducing sprint spillovers to zero within 3 months.

# PROJECTS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Forecasting Bike Share Demand | R Studio**   *Jan 2025*

## Uncovered bike rental demand patterns, revealing peak usage during commuting hours and summer; developed a VAR model that outperformed ARIMAX with an R-squared of 0.298 on unseen data, providing data-driven insights for optimizing bike availability in urban cities.

**Online Shopper’s Purchasing Prediction | Python**  *Dec 2024*

## Detected key sales trends, showing spikes in May and November but low conversion rates; optimized revenue prediction by applying SMOTE for class balance and selecting Random Forest as the best model, achieving 93% recall and accuracy over a naïve baseline of 85% accuracy.

**Fleet Risk Analytics | Hadoop & Tableau**  *Nov 2024*

## Optimized fleet safety by leveraging Hadoop, Hive, and Tableau to analyze telematics data, identifying high-risk drivers and truck models like Oshkosh, enabling targeted risk mitigation strategies that improved operational safety and reduced accident risks.

**Second-Hand Cars Market Analysis | Tableau**  *Oct 2024*

## Created a Tableau dashboard to investigate mid-tier second-hand car pricing, revealing that mileage drives price more than a model year and that brands like Porsche and Mercedes-Benz maintain high prices despite high availability, thus helping buyers understand pricing dynamics.

**Emotion Detection using NLP Models | Python & Hugging Face** *Dec 2023*

## Applied Natural Language Processing (NLP) and social listening techniques to analyze emotion trends in tweets, fine-tuning RoBERTa-Base, Gemma 2.2B, and Llama Instruction for multi-label classification, achieving a macro F1 score of 0.47405 and optimizing insights for audience engagement and sentiment analysis.

# LEADERSHIP EXPERIENCE AND HACKATHONS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Winner, Alteryx SparkED Hackathon** *Mar 2024*

## Competed against 20+ university teams and secured 1st place ($16,000 prize) by leveraging Alteryx and Tableau to analyze Texas demographic, economic, and infrastructure data, uncovering key insights on population trends and real estate.

## Mentor, Business Analytics Leadership Council (BALC) *Aug 2023 – May 2024*

## Mentored 10+ Spring 2024 Business Analytics cohort incoming students by providing guidance on coursework and career strategies.

## Helped students enhance their job search approach via weekly sessions, leading to improved confidence in networking and recruitment success.

## SKILLS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Data Analytics & Visualization: SQL, Python, R, Alteryx, Tableau, Power BI, Excel, A/B Testing

## Big Data & Cloud Technologies: Hadoop, Spark, Hive, Google Cloud Platform (GCP), Amazon Web Services (AWS), DB2

## Machine Learning & Statistical Modeling: XGBoost, Random Forests, Regression (Linear, Logistic, Multilinear), Hypothesis Testing, Pytorch