

VIGNESHWAR RAVI RAO

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Education

Indiana University Indianapolis

Master of Science in Applied Data Science

Indianapolis, USA

May 2026

College of Engineering Guindy, Anna University

Bachelor of Engineering in Mechanical Engineering

Chennai, India

Apr 2020

Experience

Tata Consultancy Services Ltd.

Chennai, India

Data Analyst

May 2021 – Jul 2024

- Collected 15,000+ potential customer details using web scraping with **Python**, **Selenium**, **BeautifulSoup**, and integrated them into the master database using **Snowflake**
- Saved 150+ hours by automating customer data integration with **Pandas** and **Regex**, and boosted team productivity by 70% through streamlined quality checks and reporting using **Python** and **Excel VBA**.
- Enabled targeted marketing strategies by identifying 10,000+ active and inactive customers using **SQL** analysis in **Snowflake**.
- Accelerated pricing alignment process by building an **Excel dashboard** with advanced formulas to compare product prices post-merger.
- Taught Python** to 8 trainees, including manager and leads, through structured hands-on sessions over 2 months, enhancing their practical coding proficiency.

BOM Analyst

Oct 2020 – Apr 2021

- Decreased manual effort by 85%, saved \$9,000, and enhanced reporting speed by 70% by developing **Excel VBA** macros to automate BOM data extraction, consolidation, and weekly report generation.
- Ensured 100% accuracy in BOM data by collaborating with design engineers to clean and validate BOMs for two car models.

Projects

Used Car Price Prediction | Github | Web-App

Apr 2025

- Scraped over **19,000+** car listings using **Selenium** and **BS4**. Also cleaned the data using **Pandas**.
- Trained and evaluated **7 ML models** including Linear Regression, Decision Tree Regressor, SVR and more using **scikit-learn**; selected best model based on **RMSE** and **R²** scores.
- Deployed the final model using **FastAPI** with token-based authentication, containerized it via **Docker**, and built a **Streamlit** app for real-time price predictions.

E-commerce Sales Analysis | Github

Sep 2024

- Analyzed Target's e-commerce sales data using **SQL** in **BigQuery** to identify customer distribution, order trends, and payment behavior.

Technical Skills

Programming Languages: Python, MySQL, R Programming, Excel VBA

Libraries: Numpy, Pandas, Selenium WebDriver, BeautifulSoup, Regex, Scikit-learn, PyTorch, FastAPI

Technologies: Snowflake, BigQuery, Tableau, GitHub, AWS, Docker

Machine Learning: Regression, Classification, Feature Engineering

Hypothesis Testing: A/B Test, Chi-Squared Test, ANOVA, Z-test, Correlation Test

Awards

Best Team Award - For outstanding contributions during mergers & acquisitions, streamlining customer data.

On the Spot Award - For improving team efficiency by developing automation tools for data entry and quality checks.

Leadership & Extracurricular

Data Science and Machine Learning Club

Indianapolis, USA

Event Management Lead

Oct 2024 – Present

- Delivered technical presentations to university students.
- Worked closely with committee members to host presentations and networking events.