# Vamshi Krishna Reddy Attla

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### **Education**

### Florida Institute of Technology, Melbourne, Florida

Master's Computer Science, 3.2 GPA | May 2025

Relevant Coursework: Database Management, Cryptography, Computer Information Security, Computer Vision

#### Graphic Era Hill University, Uttarakhand, India

B.T in Computer Science & Engineering, 3.55 GPA | May 2023

Relevant Coursework: Software Management, Networking and Security, Machine Learning

# **Experience**

### VRRC company, Signaling Data Analyst Intern

Andhra Pradesh, India [July 22 – April 23]

- Assisted in analyzing railway signaling data from MSDAC, BPAC, and Data Loggers to learn about anomaly detection and traffic flow patterns.
- Gained hands-on experience with SQL and Python for basic data extraction and cleaning tasks related to train movements and axle counting.
- Supported the development of simple Power BI dashboards to visualize block section occupancy and train status under supervision.
- Contributed to team discussions by compiling preliminary reports on data irregularities and system performance observations.

# **Projects**

### Retail Loan Product Analytics & Risk Optimization | Apr 25 - May 25 [Individual Project]

Tools: Python, SQL, Airflow, dbt, Tableau

Built an analytics platform to assess and optimize the performance of retail lending products across regions and customer segments. Engineered end-to-end ETL pipelines and data models to compute KPIs such as default rates, revenue per loan, and pricing impact. Delivered actionable risk scores and product pricing simulations, enabling data-driven decisions for loan approvals and tier structuring.

# Insurance Product Analytics & Optimization | Feb 25 – Mar 25 [Individual Project]

Tools: SQL, Python, Tableau, Power BI

Designed and delivered a dynamic analytics dashboard to track and evaluate insurance product performance across regions and time periods. Conducted in-depth analysis of pricing strategies, loss ratios, and market penetration to uncover revenue leakage and growth opportunities. Generated executive-level quarterly business reviews and implemented predictive churn models to guide data-driven product refinement and pricing optimization.

## Advanced Customer Segmentation | Jan 2025 [Individual Project]

Tools: Python, K-Means, Power BI

Built an RFM-based customer segmentation model using K-Means clustering to identify key customer groups. Designed an interactive Power BI dashboard to deliver business insights on customer lifetime value, loyalty, and churn. Helped simulate marketing strategies by analyzing high-value segments and purchase behavior.

### Country-Wise COVID-19 Vaccine Analysis | Jan 25 [Individual Project]

Tech Stack: Tableau, Excel(PivotTables, VLOOKUP, conditional formatting, macros), Public WHO Dataset

Designed and developed interactive Tableau dashboards to analyze global COVID-19 vaccination rollout across 150+ countries. Visualized key product delivery metrics such as total vaccinations, daily rates per million, and vaccine brand distribution. Enabled trend analysis by geography and time to support health policy review and product impact measurement.

# Al-Based Fraud Detection in Banking | Aug 24 - Nov 24 [Team of 2]

Tech Stack: Python, Sql, Power BI, R

We started by collecting and preprocessing historical transaction data, ensuring data integrity using SQL. Next, we performed exploratory data analysis (EDA) in R to identify fraudulent patterns. Machine learning models (Random Forest, XGBoost) were trained in Python for fraud detection, and Power BI was used to create a real-time fraud monitoring dashboard. The system was integrated with SQL queries for live transaction analysis.

### Retail Sales Forecasting & Analytics | Mar 24 - Jun 24 [Team of 2]

Languages Used: Python, Sql, Power BI

Initially, we designed a relational SQL database to store retail sales data and built ETL pipelines for efficient data loading. We conducted deep EDA using SQL queries and R for trend analysis. Time series forecasting models (ARIMA, Prophet) were developed in Python, with predictions stored back in SQL. Power BI dashboards were created to visualize key insights like seasonal trends and inventory needs.

### **Skills & Tools**

- Technical Languages: Python, C, R
- Web Technologies: HTML & CSS, PHP, XML
- DB/Server Technology: MySQL
- Operating Systems: Linux, Windows
- Design & Miscellaneous Tools: Microsoft Office, Power BI, Tableau
- Development Environment: PyCharm, VS Code, Jupyter Notebook, Data Modelling & Understanding

### **Achievements**

- Published a research paper titled *Self-Driving Car Simulation* in the *International Journal of Science and Research (IJSR)* during the final year of undergraduate studies. The paper, published in Volume 12 (ISSN: 2319-7064), explores the Udacity simulator, data training, and testing methods (Paper ID: SR23501114821).
- Accenture Data Analytics Virtual Experience (Feb 2025); Analyzed datasets to uncover trends and presented insights through reports and presentations.