**GOKUL RAMESH**
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**ABOUT GOKUL RAMESH**:

An Innovative data science graduate student with a strong foundation in data analysis, machine learning, and software development. Adept at delivering scalable, user-centric solutions through advanced analytical techniques and robust programming skills. Previously, as a Technology Analyst at Infosys, I gained hands-on experience in frontend and backend development, database management, and cloud platforms (AWS). My expertise lies in Python, SQL, R, Tableau, and ML frameworks like TensorFlow, scikit-learn, and XGBoost. I have developed predictive models, automated ETL pipelines, and interactive dashboards, optimizing performance and driving data-driven decision-making.

To know more about his professional experience and projects, check his portfolio: https://gokulramesh22.netlify.app/

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**EDUCATION**

**University of Connecticut, Storrs, Connecticut**

- Master of Science (M.S) in Data Science (Aug 2024 – Dec 2025)

**Anna University, Chennai, India**

- Bachelor of Engineering (B.E) in Mechanical Engineering (Aug 2017 – Apr 2021)

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**SKILLS**

**Technical Skills:** Python, R, SQL, Javascript, Microsoft Suite
**Databases & Cloud Platforms**: Postgres, MySQL, AWS
**Libraries & Frameworks:** Numpy, Pandas, Scikit-learn, Matplotlib, Seaborn, Streamlit, React, Angular, HTML, CSS
**Gen AI:** LLMs, RAG, FAISS, Hugging Face, LangChain, Prompt Engineering
**Statistical Methods:** Descriptive & Predictive Analytics, Machine Learning Algorithms, Data Visualization, Hypothesis Testing,
Hyperparameter Tuning, Sentiment Analysis, Time-Series Forecasting, A/B testing
**IDEs and Tools:** RStudio, Jupyter Lab, Visual Studio Code, Google Collab, Tableau, Jenkins, GitHub, Confluence
**Techniques:** Agile (Scrum and Kanban), JIRA, CI/CD

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**PROFESSIONAL EXPERIENCE**

**Technology Analyst | Infosys, Chennai, India** ***(Mar 2023 – Jul 2024)***

- Spearheaded the development of an innovative Pre-Order web application for Toyota's US client, incorporating customer feedback to refine features; the application is now utilized by over 50 dealerships nationwide.
- Engineered a real-time data streaming pipeline using Kafka and Python, enabling seamless data extraction, transformation, and loading (ETL) in S3 database; hosted on AWS (ECS) ensuring scalability and reducing processing time by 30%
- Innovated SQL-driven predictive models to optimize inventory allocation based on preorder demand, reducing shortages by 20% and improving supply chain performance by 40% through data-driven forecasting and real-time adjustments.

**Systems Engineer | Infosys, Chennai, India *(Jan 2022 – Feb 2023)***

- Developed a Dealer Onboarding Tool with enhanced screen response time by 50%.
- Innovated SQL-driven predictive models to optimize inventory allocation based on preorder demand, reducing shortages by 20% and improving supply chain performance by 40% through data-driven forecasting and real-time adjustments.
- Leveraged pagination logic to efficiently handle large datasets, enhancing data retrieval performance by 40% and improving user experience in API responses for faster access.

**AI/ML Intern | Tamilvanan Industries, Tamil Nadu, India *(May 2019 – Aug 2019)***

- Used Root Cause Analysis to improve compliance and reduce defects, enhancing product quality.
- Implemented predictive maintenance, reducing downtime by 90% and improving productivity.

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**ACADEMIC PROJECTS**

**Time Series Forecasting – Predicting Airline Passenger Traffic**

- Refined a time series forecasting model for airline passenger traffic using ARIMA, SARIMA, and Prophet models, improving data preprocessing, applying AIC-based selection, and fine-tuning seasonal components to achieve 94% prediction accuracy.

**Diabetes Prediction Using Machine Learning**

- Implemented a predictive model for early diabetes detection using feature engineering, model comparison (Logistic Regression, KNN, SVM, Random Forest), and hyperparameter tuning, achieving 74.5% accuracy.

**Titanic Survival Rate Analysis Dashboard**

- Designed an interactive Tableau dashboard analyzing Titanic survival rates, optimizing ETL pipelines with SQL, Pandas and NumPy, reducing processing time by 20%, and enhancing visualization performance.

**Credit Card Fraud Detection with Machine Learning**

- Built a fraud detection pipeline using Isolation Forest with 99% accuracy for anomaly detection.
- Preprocessed data with StandardScaler and median imputation for consistency.
- Implemented Naive Bayes, Decision Tree, Random Forest, Gradient Boosting, and XGBoost models, improving performance by 20%.
- Achieved 75% F1-Score and 74% Recall with optimized XGBoost and visualized feature importance for interpretability.

**Predictive Modeling of Corporate Takeover Dynamics**

- Standardized features (PREM, ASSET, INST) and improved data quality by 98%.
- Applied Multiple Linear Regression with stepwise selection, optimizing predictor selection by 20%.
- Implemented GLMs with logit functions, achieving 85% classification accuracy.
- Leveraged Random Forest and XGBoost, boosting performance by 25% through hyperparameter tuning.

**Personal Information:**

- Currently lives in Hartford, Connecticut.
- He comes from Ambattur, Tamil Nadu, India.
- Loves to play Cricket, Basketball, Football.
- Big fan of Messi and Barcelona.
- Favourite Color: Black
- Favourite Music Director: Yuvan
- In relationship with Swetha M, Senior Test Engineer in Infosys.
- Languages Known: English, Tamil.
- Favourite Series: Breaking Bad, Peaky Blinders.
- Favourite Food: Biriyani
- Age: 24

**AWARDS & ACHIEVEMENTS:**

Rise Awards | Infosys, India - Best Team

Convergence Awards | Infosys, India - BTN Champion.

**EXPERIENCE SUMMARY :**

Gokul has around 3 years of professional experience, including roles as a Technology Analyst, Systems Engineer, and AI/ML Intern, showcasing expertise in building scalable applications, enhancing operational efficiency, and implementing data-driven solutions.