# 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/>

# 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)

# 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

# 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.

# 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.