

GOKUL RAMESH

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EDUCATION

University of Connecticut, Storrs, Connecticut

Aug 2024 – Dec 2025

Master of Science (M.S), Data Science

Coursework: Generative AI, Machine Learning, Data Mining, Statistics, Data Ethics & Equity

Anna University, Chennai, India

Aug 2017 – Apr 2021

Bachelor of Engineering (B.E), Mechanical Engineering

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 (Client: Toyota North America)

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.
- Designed custom filtering and screen customization options, empowering users to add/remove columns, sort orders, and save personalized screen layouts, achieving a 95% success rate.
- Architected stored procedures and triggers to automate reporting, reducing processing time by 40%, and implemented indexing strategies to enhance query performance by 60%, optimizing database.

Systems Engineer | Infosys, Chennai, India (Client: Toyota North America)

Jan 2022 – Feb 2023

- Developed a Dealer Onboarding Tool with a user-friendly interface to display and edit essential dealer information.
- Enabled caching mechanisms for static data, minimizing database calls and improving the flow for faster response times by 35%, enhancing overall system performance.
- Integrated PDF and Excel download features for dealer information. Enabled dealers to seamlessly input large lists of data manually, streamlining the onboarding process by implementing a bulk order feature and reducing user time by 80%.
- Leveraged pagination logic to efficiently handle large datasets, enhancing data retrieval performance by 40% and improving user experience in API responses for faster access.
- Created scheduler in Python to automate data extraction, transformation, and publishing, reducing manual effort by 40%, and designed database schemas to ensure efficient storage and eliminate redundancy.

AI/ML Intern | Tamilvanan Industries, Tamil Nadu, India

May 2019 – Aug 2019

- Implemented Natural Language Processing techniques, such as tokenization and sentiment analysis using NLTK and spaCy, enhancing text classification accuracy by 20% and improving sentiment prediction for customer feedback analysis.
- Performed exploratory data analysis (EDA) using Pandas, NumPy, and Matplotlib, uncovering key patterns and data inconsistencies, which improved feature selection and boosted ML model accuracy by 25%.

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

- Streamlined fraud detection pipeline using Isolation Forest and Fine-tuned ML models using scikit-learn, including Naive Bayes, Decision Tree, Random Forest, Gradient Boosting, and XGBoost with GridSearchCV, improving performance by 25%.