

Emayabarathi Karupanan Subbarayan

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Profile Summary

Passionate and detail-oriented Data Science graduate with strong foundations in statistical learning, machine learning, and full-stack development. Experienced in Python, SQL, and cloud technologies with hands-on projects applying ML models like Random Forest, XGBoost, LSTM to real-world data. Strong communication and presentation skills with experience delivering academic research findings.

Education

University of East London — London, UK Jan 2024 – May 2025
MSc Data Science

- **Coursework:** Dissertation on Airline Revenue Management using Machine Learning (XGBoost, Random Forest, LSTM)

University College of Engineering — Trichy, India 2019 – 2023
Bachelor of Technology (B.Tech) in Information Technology

Technical Skills

- **Languages:** Python, HTML, CSS, JavaScript, SQL
- **Frameworks & Tools (Exposure):** Flutter, Dart, Godot Engine, GDScript, TensorFlow, Scikit-learn, Git, Linux, Firebase, MySQL
- **Currently Learning:** Advanced Python, Machine Learning

Projects

Airline Revenue Management Using Machine Learning Jan–May 2025

- Developed machine learning models (Random Forest, XGBoost, LSTM), achieving an R^2 score of approximately 0.97 for airline demand forecasting.
- Simulated revenue generation of approximately £1.86 billion through automated data preprocessing, hyperparameter tuning, feature engineering, and visualization.
- Tools & Technologies: Python, Pandas, Scikit-learn, XGBoost, Random Forest, LSTM (Keras/TensorFlow), Matplotlib, Seaborn.
- **GitHub:** Airline Revenue Management

Smart Drainage System Using AI and Cloud 2024

- Integrated IoT sensors, AI predictive analytics, and cloud infrastructure for real-time monitoring.
- Reduced maintenance downtime through predictive maintenance algorithms.
- **GitHub:** Smart Drainage System

Xoking — Multiplayer Tic Tac Toe Game 2022–2024

- Engineered real-time multiplayer game (11x11 grid) with Godot Engine, GDScript, and Nakama Server.
- Deployed on Google Play Store; achieved 1000 downloads.
- **GitHub:** Xoking Game

FoodieX — Food Donation Mobile App 2022

- Designed and implemented Flutter-based app connecting food donors and recipients.
- Optimized frontend for intuitive donation management, reducing food wastage.
- **GitHub:** FoodieX App

Mid-Day Meal Record System — Smart India Hackathon 2022

- Developed mobile app using Flutter and Dart to digitize Mid-Day Meal Scheme data.
- Designed user-centric UI and delivered full documentation for hackathon submission.
- **GitHub:** Poshan App