Karthikeya Siripuram

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Summary

As a Computer Science enthusiast, prioritizing **practical application**, I am developing my expertise in **data science and full-stack engineering** by actively building personal projects from the ground up. This method provides me with deep, hands-on experience in **system design, backend and frontend development, and ML model deployment**, enabling me to turn complex challenges into effective, user-centric solutions.

Education

B.Tech(Bachelor of Technology)

🏛 National Institute of Technology (NIT), Warangal

📅 2022- 2026 • Graduation • Mechanical Engineering

Projects

Large-Scale Click-Through Rate (CTR) Prediction

🔗 Project Link

Engineered time-based features and trained a LightGBM model on a 2M-sample dataset to predict ad click-through rates, achieving a competitive LogLoss of 0.3752.

Machine Learning Surrogate Model for Propeller Performance Prediction

🔗 Project Link

Developed a high-accuracy ($R^2 > 0.95$) Random Forest model to predict UAV propeller aerodynamic performance, creating a rapid surrogate for CFD simulations and physical testing.

AI Diagnostic Suite

🔗 Project Link

Developed a full-stack diagnostic application, serving five distinct ML/DL models (Scikit-learn & TensorFlow) via a Flask REST API to a responsive React and Material-UI frontend

360-Degree Customer Intelligence Dashboard

🔗 Project Link

Built a 4-in-1 customer intelligence solution, implementing models for Segmentation (K-Means), Churn Prediction (Classification), Lifetime Value (Regression), and Product Recommendation

Achievements

GATE AE-2025

Secured an **All India Rank 791** in **GATE Aerospace Engineering.**

Published Author-2025

Authored **"Aaroheen and Aartscii: Formative Years,"** the debut novel in a nine-book series. The story explores themes of curiosity, loss, and unconventional learning through a narrative that integrates poetry and prose.

Vishwakarma Awards-2024

Led a team of 3, achieving the prototype design stage for a multifunctional bicycle concept under the Smart Mobility theme.

Skills

- Data Structures and Algorithms
- Python Programming
- Machine Learning Applications
- System Design
- C++
- Prompt Engineering
- Creative Design
- Data Analytics

Certificates

Google Data Analytics Specialization

🔗 Certificate Link

Generative AI

🔗 Certificate Link