MADHANADEVA D

madhanadeva2683@gmail.com | +91 9025703517 | Pudukkottai, Tamil Nadu
github.com/Madhanadeva-D | linkedin.com/in/madhanadeva-d

Summary

Graduate with expertise in Machine Learning, Data Analytics, and Generative AI. Proficient in Python, Java, SQL, TensorFlow, Keras, LLMs, RAG, and visualization tools like Power BI and Tableau. Seeking an entry-level AI/ML or Data Analyst role to deliver data-driven solutions.

Education

B.Tech in Artificial Intelligence & Data Science – Dr. Mahalingam College of Engineering and Technology, Pollachi, Tamil Nadu 2021 – 2025
CGPA – 8.19

12th – Brindavan Hr. Sec. School, Pattukkottai, Tamil Nadu 2019 – 2021
Percentage – 92.4%

Technical Skills

Programming: Python, Java, SQL
Machine Learning & AI: TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy, LLMs, RAG
Data Analysis & Visualization: Excel, Power BI, Tableau, Matplotlib, Seaborn
Databases & Tools: MySQL, Streamlit

Professional Experience

Intern – Open Weaver (Remote) Jun 2023 – Jul 2023

- Customized and deployed 3 applications using pre-built libraries from the Kandi platform.
- Adapted and configured existing Machine Learning and Deep Learning code from 3 repositories to understand concepts without retraining models.
- Optimized frontend configurations for 5 applications and collaborated with a 3-member team to deliver projects on time.

Projects

F1 2025 Season Performance Analytics Nov 2025 – Dec 2025
Python, Pandas, Matplotlib, Seaborn GitHub

- Developed a Python pipeline to clean and merge 8 Excel datasets covering 24 circuits and 25 drivers, reducing preprocessing time by 30%.
- Performed exploratory data analysis and computed key metrics to identify top-performing drivers and constructors.
- Created 15 visualizations highlighting driver trends, constructor standings, and season progression.

Multimodal Text Extraction and Contextual QA System Apr 2025 – May 2025
Python, LLMs, RAG, Milvus, LangChain, DeepSeek, FastAPI, Streamlit GitHub

- Built a Retrieval-Augmented Generation system to extract and query text from PDFs, images, and URLs.
- Extracted and indexed over 50,000 text chunks using Tesseract, pdfplumber, and BeautifulSoup, storing embeddings in Milvus.
- Integrated an LLM via DeepSeek API using LangChain and deployed the system with FastAPI and Streamlit.

Carbon Emission Prediction and Analysis Feb 2024 – May 2024
Python, Pandas, Matplotlib, Scipy, Streamlit GitHub

- Preprocessed 6,282 vehicle records, removed 755 outliers, and analyzed correlations between engine size, fuel consumption, and CO_2 emissions.
- Trained a Gradient Boosting model achieving 92% accuracy across multiple fuel types and vehicle classes.
- Developed a Streamlit web application for real-time CO_2 emission prediction.

Certifications

- Power BI for Beginners (Simplilearn) Mar 2025
- Young Professional (TCS iON) Jan 2024
- Machine Learning Foundations (AWS Academy) Dec 2023
- Machine Learning with Python (Coursera) Oct 2023
- Exploratory Data Analysis for ML (Coursera) Mar 2023