Ayush Jain

Data Scientist

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SUMMARY

Data Scientist with experience in data analysis, predictive modelling, and AI-driven solutions. Proficient in Python and its libraries, including NumPy, Pandas, Scikit-Learn to develop machine learning models and automate analytical processes for handling large datasets, feature engineering, and model optimization to improve decision making and drive innovation with efficiency in data-driven environments.

EDUCATION

- **B. Tech in Computer Science Engineering**   **October 2022 – May 2026**
  The LNM Institute of Information Technology, Jaipur, Rajasthan, India. (CGPA: 7.2)

SKILLS

- **Programming Languages:** Python, SQL
- **Data Analysis & Visualization:** NumPy, Pandas, Matplotlib, Seaborn, Power BI, Tableau, Microsoft Excel
- **Machine Learning Libraries:** Scikit-Learn, TensorFlow, NumPy, Pandas
- **Soft Skills:** Teamwork and Collaboration, Leadership, Strong Communication and presentation.
- **Technical Skills:** Machine Learning, Deep Learning, NLP, Data Science, GitHub.

PROJECTS

Emergency Vehicle Path Optimization and Detection Link

- Developed a Reinforcement Learning (RL) model with LSTM traffic prediction, reducing emergency response times by 32% through real-time traffic optimization on 50,000+ vehicle movements for realistic road network modelling, ensuring high scalability and real-world applicability.
- Implemented a graph-based shortest path algorithm (Dijkstra, A, RL-Q learning), improving route efficiency by 28% and cutting average travel time by 5-7 minutes in high-traffic conditions.
- Trained an LSTM model on historical traffic data with an R-squared accuracy of 87.4%, enabling adaptive decision-making for emergency dispatch systems.

LLM-Powered Text-to-SQL Query System Link

- Developed a Streamlit-powered NLP-to-SQL platform enabling natural language queries on a MySQL database of 5K+ retail inventory, sales, and discount records.
- Integrated LangChain with Google Gemini (PaLM) API and HuggingFace embeddings to auto-generate SQL queries with 90%+ retrieval accuracy.
- Enhanced query precision using ChromaDB vector store and few-shot learning, boosting semantic match accuracy approximately by 15% across 100+ test queries.

WORK EXPERIENCE

Data Science Intern, Celebal Technologies, Jaipur Link   **May 2025 – July 2025**
- Built end-to-end Machine learning models on 100K+ record datasets, improving processing speed by 30% using optimized Python and Pandas workflows.
- Engineered and fine-tuned machine learning models through cross-validation and hyperparameter optimization, elevating computational efficiency by 20%, while aligning analytical strategies with business objectives.
- Refined 20+ complex SQL queries, reducing data extraction and transformation time by 25% across client projects.

Data Analyst Intern, To-Let Globe Link   **February 2025 – April 2025**

- Prepared 50+ detailed reports, dashboards, and presentations, summarizing analytical findings and driving 25% faster decision-making for stakeholders.
- Collaborated with cross-functional teams across 3+ departments to develop analytics solutions, resulting in a 30% improvement in business insights.
- Performed statistical analysis on datasets with 100,000+ records, identifying key data trends and patterns that enhanced forecasting accuracy by 22%.