Guru Saran Satsangi Peddinti
Jami, Vizianagaram, Andhra Pradesh, India
+91 9581756162 | saransatsangiguru@gmail.com
LinkedIn | Portfolio | GitHub

Professional Summary

Data Science student at IIT Madras with a strong foundation in Python, SQL, statistics, and machine learning. Skilled in designing and implementing end-to-end data analytics workflows encompassing data ingestion, transformation, visualization, and predictive modeling. Proficient in leveraging big data and MLOps tools such as Apache Spark, Databricks, Delta Lake, and MLflow to build scalable and efficient data solutions. Demonstrates strong analytical thinking and problem-solving abilities, applying data-driven methodologies to optimize decision-making and deliver actionable insights across analytics, data engineering, and applied machine learning domains.

Education

Bachelor of Science in Data Science and Applications
Indian Institute of Technology Madras, Chennai
May 2024 – Present (Second Year)
Relevant Coursework: Machine Learning Foundations, Deep Learning, Generative AI, Statistics for Data Science, Data Analysis and Visualization

Diploma in Computer Engineering
Sanketika Polytechnic College, Visakhapatnam
Graduated: March 2024
Relevant Coursework: Computer Architecture, Programming Fundamentals, Data Structures Basics, Computer Hardware and Networking, Software Development Concepts

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Work Experience

Python Developer Intern – *Eduhax, Visakhapatnam, India*
September 2021 – October 2021

- Developed beginner-friendly Python applications to support interactive learning on an educational platform.
- Designed and implemented GUI-based tools using **Tkinter** and **Turtle Graphics**, enhancing user engagement and usability.
- Created functional projects including a **Digital Clock**, **Alarm Clock**, **QR Code Generator**, and **URL Shortener** to demonstrate core programming concepts.
- Improved code modularity, readability, and accessibility, enabling easier understanding and maintenance for new Python learners.

Project Experience

Pharmacy Analytics Lakehouse (Databricks) | *Dec 2025 – Jan 2026*

- Designed an end-to-end analytics lakehouse using **Databricks** and **Apache Spark** for pharmacy data management and insights.
- Generated and processed **1,000,000+ synthetic pharmacy transaction records** to simulate real-world retail operations.
- Implemented **Medallion Architecture (Bronze, Silver, Gold)** using **Delta Lake** for structured data processing and governance.
- Built scalable **data ingestion, transformation, and analytics pipelines** supporting real-time and batch workloads.
- Developed interactive dashboards for **inventory availability, expiry risk, pricing trends, and key performance indicators (KPIs)**.
- Applied **Linear Regression** and **Logistic Regression** models for stock risk prediction and demand forecasting.
- Utilized **MLflow** for experiment tracking, model versioning, and performance comparison.
- Optimized **Spark performance** through partitioning strategies and query tuning for faster data processing.

PDF Reader and Audiobook Generator

- Built a **Python-based application** that converts PDF documents into audio using text-to-speech technology.
- Implemented **page selection, navigation controls, and multilingual voice output** for enhanced accessibility.
- Reduced processing time by approximately **60%** through **multithreading** and optimized I/O operations.

Desktop Web Browser

- Developed a lightweight **desktop browser** using **PyQt5** and **QtWebEngine** with a focus on performance and usability.
- Implemented **tabbed browsing, search functionality, navigation controls, and session persistence**.
- Improved rendering performance by approximately **50%** through efficient resource management.

Educational Python Projects – Eduhax

- Created beginner-friendly applications including **Digital Clock**, **Alarm Clock**, **QR Code Generator**, and **URL Shortener**.
- Developed **Turtle-based graphics projects** to demonstrate programming logic and visualization concepts.
- Focused on **GUI development** and accessible design to support Python learning for new developers.

Technical Skills

Programming Languages: Python, SQL, Java
Data Engineering & Analytics: Apache Spark, Spark SQL, Delta Lake, Spark ML
Machine Learning: Linear Regression, Logistic Regression
Libraries & Frameworks: Tkinter, PyQt5, PyPDF2, pyttsx3, Turtle

Platforms & Tools: Databricks (Community & Serverless), MLflow, Git, GitHub, Jupyter Notebook, Google Colab, Canva

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Certifications

- Diploma in Software Engineering – Datapro (2015)
- Networking Fundamentals – Microsoft Virtual Academy (2017)
- SQL Database Fundamentals – Microsoft Virtual Academy (2017)
- Python Programming Language – Eduhax (2021)
- Python Projects – Eduhax (2021)