Lalitha Samyuktha Jayanthi

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Value Proposition

Data Science graduate with a passion for data science and automation. Proficient in developing machine learning and deep learning models, statistical analysis, SQL querying, web scraping, and NLP using large language models (LLMs). Skilled in Microsoft Power Platform for process simplification and data visualization with Python libraries and Power BI. Eager to contribute building intelligent systems for data quality checks and automation in an agile environment. Strong problem-solving skills with hands-on projects demonstrating real-world applications.

Education

- B. Tech | CSE-Data Science | Avanthi Institute of Engineering and Technology | 2025 | 7.88 CGPA
- Intermediate | Sri Chaitanya Jr. College | 2021 | 9.12 CGPA
- Tenth | Sri Chaitanya School | 2019 | 9.5 CGPA

Technical Proficiencies

- Programming & Data Manipulation: Python (advanced), SQL (proficient for querying large datasets), PySpark for big data processing.
- Machine Learning & Deep Learning: Scikit-learn, TensorFlow, Keras; model development and deployment for classification, regression, and anomaly detection.
- Statistical Analysis: Hypothesis testing, trend identification, pattern recognition using Pandas, NumPy, and SciPy.
- Natural Language Processing (NLP) & LLMs: BERT, GPT models; text analysis, sentiment detection, and automated data validation.
- Data Extraction & Automation: Web scraping with BeautifulSoup, Scrapy, and Selenium; API integrations.
- Visualization & Reporting: Matplotlib, Seaborn for Python-based visualizations; Microsoft Power BI for interactive dashboards.
- Tools & Platforms: Microsoft Power Platform (Power Automate, Power Apps), Azure Data Factory (familiar from projects), Git for version control.
- Other: Agile methodologies, problem-solving, analytical skills; basic understanding of ESG concepts and 6 Sigma principles from self-study.

Projects

1. Automated Data Validation System (NLP & LLM-Based Checker)

- Developed a deep learning model using BERT and GPT-2 to perform intelligent systematic checks on textual and Boolean ESG data, identifying incorrect or missing entries with 95% accuracy.
- Applied statistical analysis to detect trends in sustainability reports, reducing manual review time by 70% in simulated datasets.
- Technologies: Python, SQL, TensorFlow, Hugging Face Transformers, Power Automate, Power BI.

2. Intelligent Trend Analysis Dashboard for Environmental Data

- Built a machine learning pipeline with scikit-learn and deep learning (LSTM networks) to analyze time-series environmental data, predicting trends and anomalies in carbon emission patterns.

- Conducted statistical analysis on large datasets (1M+ rows) using Python and SQL to uncover insights, such as correlations between industrial activities.

- Technologies: Python, SQL, TensorFlow, Power BI, BeautifulSoup.

3. Web Scraping and NLP Automation for Market Insights

- Designed a web scraping framework using Scrapy and BeautifulSoup to collect textual data from financial news sites, focusing on ESG-related content.

- Applied NLP with LLMs (fine-tuned GPT model) for sentiment analysis and entity recognition, automating checks for data inconsistencies in Boolean fields (e.g., compliance flags).

- Technologies: Python, SQL, Hugging Face, Power Automate, Matplotlib, Seaborn.

Internships & Simulations

- AI Intern – AIMER Society | 8 Weeks
- ML Intern – Indian Servers | 8 Weeks
- Data Science Intern – Yhills | 8 Weeks
- Data Science Intern – Prodigy | 4 Weeks
- Job Simulation – TCS | Forage Plat form

Certifications

- Google Cloud Gen AI
- Data Analytics by Jobaaj Learnings.
- SQL by Oracle.
- Java by Oracle.

Professional Attributes

- Languages: English, Hindi, Telugu.
- Interests: Continuous learning in big data technologies, cloud computing, and temple tourism for work-life balance.
- Availability: Immediate.