Swajan Reddy Gaddampally

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Education

University of Houston August 2023 – December 2024
Master's in Statistics and Data Science *GPA: 3.85*
Courses: Machine Learning, Big Data Analytics, Deep Learning, Data Visualization, Statistical Analysis, Spatial Statistics

Jawaharlal Nehru Technological University August 2019 – July 2023
Bachelor's in Computer Science *GPA: 8.2*
Coursework: Database Systems, Data Structures and Algorithms, OOPS concepts, Computer Networks, Operating Systems, IoT

Skills

Data Science and Machine Learning: Python, Pandas, NumPy, Pytorch, Tensorflow, SpaCy, NLTK, LangChain, NLP, Knowledge Graphs, Hugging Face, Scikit, RAGS
Big Data Analytics and Engineering: PySpark, Apache Spark, MySQL, Azure, Apache Kafka, Apache Airflow, Hadoop, ETL Pipelines
Cloud ML Ops and Deployment: AWS, Azure, GCP, Kubeflow, MLFLow, Docker, Git, Kubernetes
Data Visualization and Business Analytics: Power BI, Tableau, Regression Analysis, Hypothesis Testing, Excel
Web and App Development: Flask, Django, HTML/CSS, JavaScript, Tkinter, Salesforce Developer, UiPath (RPA Developer), Selenium

Professional Experience

University of Houston, Houston, TX, USA
Machine Learning Research Assistant September 2023 – Present

- Collaborated on HR management simulator development, improving effectiveness by 15%, and launched RAG model infrastructure, boosting text data processing efficiency by 80%.
- Designed and managed data pipelines using Azure Data Factory and Azure Databricks, resulting in interactive dashboards and improvement in decision-making by creating databases of student grades and scores.
- Leveraged Apache Spark and performed Exploratory Data Analysis (EDA) and developed insightful Power BI dashboards, improving team strategies by 25% and effectively communicating performance benchmarks.
- Optimized AI models using Python libraries (spaCy, NLTK) to analyze student feedback, provided advices leading to an 30% improvement in student satisfaction rates.

Defense Research and Development Organization, Hyderabad, TG, India
Data Science Intern January 2022 – March 2022

- Enhanced project outcomes by 20% through Python, Machine Learning, and Data Analysis. Analyzed over 10,000 multisensor data points using linear regression, decision tree, and k-means clustering, improving data-driven decision-making by 25%.
- Built and deployed an end-to-end ML Ops pipeline for target classification using AWS and Azure, achieving 86% classification accuracy and reducing model response time by 15%.
- Performed comprehensive data analysis and visualization using Python and Excel, increasing clarity of insights and reporting by 30% for project stakeholders.
- Refined predictive models and machine learning algorithms using Python, reducing error rates in analysis processes by 15% and enhancing data reliability.

Projects and Outside Experience

- **Human Mimic Chatbot using Transformers**: Developed deep learning software for human-like conversations, achieving 80% user satisfaction.
- **Image Captioning**: Implemented Transformer Encoder-Decoder architecture with pretrained Vision Transformer (ViT) and GPT-2 on the Flickr30k dataset.
- **Database Management System for Indian Cricket Team**: Designed relational databases using SQL in Oracle 7g for seamless data manipulation.
- **Custom Object Detection with Tensorflow**: Integrated Mask R-CNN-based model with 89% accuracy into camera software systems.

Research Papers Published

- Survey on Chatbot Classification and Technologies, IRJET.
- Statistics and ML in Data Science and Effect in Businesses.
- Human Mimic Chatbot, WJARR.