

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, OOPS, Computer Networks, Operating Systems, IoT

Professional Experience

University of Houston, Houston, TX, USA

September 2023 – Present

Machine Learning Research Assistant

- 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 Databricks, creating interactive dashboards and improving decision-making through structured student grade databases.
- Leveraged Apache Spark for EDA and developed Power BI dashboards, enhancing team strategies by 25%.
- Optimized AI models using Python (spaCy, NLTK) to analyze student feedback, increasing satisfaction rates by 30%.

ACEEC Innovation Labs (Freelancer)

April 2022 – June 2023

Data Analyst

- Designed and optimized SQL databases for student performance analytics, reducing data retrieval times by 40% and ensuring 100% data integrity.
- Developed interactive Power BI dashboards, visualizing student progress, drop-out risks, and academic trends, enabling faculty to take proactive interventions.
- Automated ETL workflows for data extraction, transformation, and loading, reducing manual reporting efforts by 60% and improving data accuracy.
- Collaborated with faculty and administration to translate raw data into actionable insights, influencing policy changes on student performance tracking.

Defense Research and Development Organization, Hyderabad, TG, India

January 2022 – March 2022

Data Science Intern

- Enhanced project outcomes by 20% using Python, ML, and data analysis, analyzing 10,000+ multisensor data points.
- Built and deployed ML Ops pipelines for target classification using AWS and Azure, achieving 86% accuracy.
- Streamlined ML pipelines using Docker and CI/CD practices, reducing model response lag by 5 seconds.
- Refined predictive models, reducing error rates by 15%.

Skills

- **Data Science & ML:** Python, Pandas, NumPy, PyTorch, TensorFlow, spaCy, NLTK, LangChain, NLP, Hugging Face, Scikit-learn
- **Big Data & Engineering:** PySpark, Apache Spark, MySQL, Azure, Kafka, Airflow, Hadoop, ETL Pipelines
- **Cloud ML Ops & Deployment:** AWS, Azure, GCP, Kubeflow, MLflow, Docker, Git, Kubernetes
- **Data Visualization & Analytics:** Power BI, Tableau, Regression Analysis, Hypothesis Testing, Excel
- **Web & App Development:** Flask, Django, HTML/CSS, JavaScript, Tkinter, Salesforce, UiPath, Selenium

Projects

- **Human Mimic Chatbot:** Developed using Transformers, achieving 80% user satisfaction.
- **Image Captioning:** Implemented Transformer Encoder-Decoder with ViT and GPT-2 on Flickr30k dataset.
- **Database Management for Indian Cricket Team:** Designed relational databases using SQL in Oracle 7g.
- **Custom Object Detection:** Integrated Mask R-CNN model with 89% accuracy into camera systems.

Research Papers

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