

EDUCATION

Master of Science New Jersey Institute of Technology, NJ, USA	Graduating: May 2025
Major: Data Science Computational Track	GPA: 3.83
Coursework: Applied Statistics, Advanced Database Systems Design, Machine Learning, Deep Learning, Data Visualization	
Bachelor of Technology SRM University, AP, India	2017 - 2021
Major: Mechanical Engineering	GPA: 3.52

EXPERIENCE

New Jersey Institute of Technology , NJ, USA	
Research Assistant NJIT Engineering Education Research	July 2024 - Present
<ul style="list-style-type: none">Collaborated with educational researchers to analyze real world institutional student data and identify factors affecting their academic performance using machine learning techniquesActively participated in data cleaning, handling missing data, and preparing datasets for analysis to ensure data quality and reliabilityDeveloped regression models, including Multiple Linear Regression (90.74% accuracy), Random Forest (91.04% accuracy) and XGBoost (91.14% accuracy), to predict student GPA using R	
Teaching Assistant CS-634 Data Mining Course	May 2024 - Present
<ul style="list-style-type: none">Responsible for grading weekly homework, quizzes, and course projects, ensuring timely feedback and fair assessmentsAssisted students with their course projects, guiding them through Python coding, while evaluating their code for final grading	
Research Assistant Data and Knowledge Engineering Lab	Sept 2023 - May 2024
<ul style="list-style-type: none">Integrated Explainable AI (xAI) tools and leveraged interpretability into deep learning tools used for space weather researchxAI tools like LIME, SHAP, Anchors, PDP and ALE plots are incorporated using Python into a transformer model named "SolarFlareNet"Successfully retrained the SolarFlareNet model without compromising the model's accuracy, maintaining an accuracy of 90.7%Presented a poster paper at the FLAIRS, an AI Conference, showcasing research findings to a professional audience	

PROJECTS

Exploratory Data Analysis on Global Soil Respiration Data MySQL, Tableau Desktop	2024
Personal Project	Github
<ul style="list-style-type: none">Conducted exploratory data analysis (EDA) on the Global Soil Respiration Database (SRDBv5) extracted from ORNL DAACImported raw CSV data into MySQL, performed extensive data cleaning, executed complex SQL queries (CTE's, Nested) to analyze the dataConnected the MySQL database to Tableau Desktop to create interactive dashboards, providing visual insights into soil respiration data	
WebScraping Using R R, rvest, ggplot	Spring 2024
Capstone Project Data Analytics Using R Programming Course	Github
<ul style="list-style-type: none">Developed a web scraping tool using the rvest package in R to collect articles (2008-2024) from an open-access journal "Parasites & Vectors"Implemented a unique scraping approach that minimizes resource usage by only fetching newly added articles after the initial data scrape, significantly reducing computational costs and timeCleaned the raw data using techniques such as regular expressions (regex) and conducted exploratory data analysis (EDA) using the ggplot	
eComputer Store Database System MySQL, Python, Streamlit, Pandas	Fall 2023
Capstone Project Data Management Systems Design Course	Github
<ul style="list-style-type: none">Developed a comprehensive database system for an e-commerce store using MySQL for back-end management, following a structured approach including the creation of ER diagrams and transforming them into a relational database schemaBuilt an interactive web-based user interface using Python's Streamlit library, enabling users to query and interact with the databaseDeployed the system on Github Pages, providing seamless access to the database for users through a fully functional web application	
AlgoTrade API Python, yfinance, Pandas, Tensorflow, ks-api-client	2023
Personal Project	Github
<ul style="list-style-type: none">Developed a fully automated trading bot for NSE stocks using Python, integrating real-time and historical data with the yFinance libraryImplemented technical analysis by calculating technical indicators such as Moving Average, MACD, Bollinger Bands etc., with various trading strategies based on these indicators to automate buy/sell decisionsTrained machine learning models, including LSTM, using historical stock data to predict and forecast stock pricesIntegrated Kotak Securities API (ks-api-client) for executing live trades based on the generated strategies	

PUBLICATIONS

- Interpretable Deep Learning for Solar Flare Prediction — IEEE ICTAI 2024 (Accepted)
- An Interpretable Transformer Model for Operational Flare Forecasting — [FLAIRS 2024](#)
- Accelerating a Hypersonic CO₂ Reaction Solver — [IHMTc 2021](#)

SKILLS

Languages: Python, R, SQL, PL/SQL, Bash, JavaScript, C/C++	Databases: MySQL, Oracle, MongoDB, BigQuery
Analytics: Excel, Tableau, Power BI, D3.js	Version Control: Git, GitHub, GitLab
Other: Cloud Sys.: AWS, Azure, GCP	Operating Sys.: Linux, MacOS, Windows, UNIX
	Markup Lang.: \LaTeX , HTML, CSS, Markdown

ACHIEVEMENTS

- Google Data Analytics Professional Certificate — [Coursera](#) 2023
- Algorithmic Trading & Quantitative Analysis Using Python — [Udemy](#) 2023