Hasitha Varada

Texas, United States | hasitha_16@tamu.edu | (979)344-3624 | Linkedin | GITHUB

EDUCATION

Master of Science in Data Science | GPA: 3.43   *August 2023 - May 2025*

Texas A&M University, College Station, Texas

Coursework - Data Mining and Analysis, Databases and Computational Tools used in Big Data, Mathematics for Data Science, Statistics for Data Science, Machine Learning, Artificial Intelligence, Natural Language Processing, Digital Image Processing, Data Structures and Algorithms, Categorical Data Analysis, Data Visualization.

Bachelor of Engineering in Computer Science | GPA: 8.64   *August 2019 - May 2023*

SRM Easwari Engineering College, Chennai, India

Coursework - Problem Solving through Python, Data Structures, Data Science, Design and Analysis of algorithms, Operating systems, Database Management systems, Probability and number theory, Data Mining, Artificial Intelligence, Human computer interface, C programming.

EXPERIENCE

Research Assistant   *January 2024 - June 2024*

Stochastic Geomechanics Laboratory, College Station, Texas

- Implemented a rigorous risk assessment framework establishing benchmarks for risk tolerance levels, improving stakeholder confidence and ensuring compliance with industry standards across nine supply chains, maximizing overall operational integrity.
- Streamlined data collection analysis, integrating Optical Character Recognition (OCR) into a PDF parser to increase processing and preserve the integrity of 120 + datasets, crucial for supply chain risk management.

Front end Web Developer   *April 2022 - May 2022*

Sparks Foundation, Chennai, India

- Produced a dynamic, user-friendly banking website through web designing with HTML and JavaScript featuring a secure authentication mechanism and a responsive user interface, strengthening customer trust and driving team success.
- Conducted EDA to assess transaction security, pinpointing and addressing four vulnerabilities, which fortified system defenses, improved response time to security threats by 50%, and enhanced overall performance and supported sales growth.

Data Research Intern   *September 2021 - December 2021*

Sync-Ed, Chennai, India

- Analyzed user behaviors, preferences, and industry trends to identify key patterns and insights driving strategic decision-making; synthesized data from 10K+ users, resulting in a 20% increase in user retention and fostering community development.
- Created and implemented ML models including Logistic Regression, Min-Max Algorithms and Supply chain Management, to forecast customer preferences; tailored product suggestions, resulting in a 15% boost in conversion rates.

SKILLS & PROFICIENCIES

Languages: Python, R, HTML/CSS, XML, MySQL

Frameworks: Scikit-learn, Cat-Boost

Tools: Matplotlib, Seaborn, Power BI, MS Advanced Excel

Databases: MongoDB, PostgreSQL

Version control: GITHUB, Docker

PUBLICATIONS

Varada, Hasitha "**Hybrid Machine Learning Algorithms for Effective Prediction of Water Quality,**" presented at the Journal of Advances in data and information sciences. January 5th, 2024, https://doi.org/10.1007/978-981-99-6906-7_40

PROJECTS

The Expected Lifespan of a Person at Different Stages of Life Link**:**

- Identified key patterns via statistical methods and Exploratory Data Analysis; trained Lasso, Ridge and Linear regression models, confirming Linear regression as most effective, and supported team decisions with data visualizations.

Predicting Air Pollutant Concentration with Multi-Sensor Data Link**:**

- Collaborated in a cross-functional team to develop an accurate model using MLP and Random Forest, estimating pollutant concentrations from multisensory data, with a model that explained 88% of variance, showing strong predictive capability.

CNN Approach to Fashion-MNIST Image Classification Link**:**

- Developed and evaluated machine learning models for the Fashion-MNIST dataset, focusing on precision and interpretability. Built Convolutional Neural Networks (CNN) to capture spatial hierarchies in grayscale, and documented findings for team dissemination.

ACHIEVEMENTS

First prize in CRYPTATHON – Hackathon, CIT College, Coimbatore