AMULYA REDDY DATLA

Buffalo, New York, USA
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Education

University at Buffalo, The State University of New York Jan 2024 – May 2025
Master of Science (MS) in Engineering Science Data Science GPA: 3.792/4
G. Pulla Reddy Engineering College (Autonomous), India Aug 2019 – June 2023
Bachelor of Technology in Electronics and Communication Engineering GPA: 8.62/10
Minor in Computer Science Engineering

Skills

Programming Languages: Python, SQL, Java, C, Matlab, JavaScript, R
Data Science & Analysis: Machine Learning, Data Analysis, Statistical Learning, Time Series Analysis, Neural Networks, Natural Language Processing, Power BI
Big Data Technologies: Hadoop, Spark, RDBMS
Libraries & Frameworks: TensorFlow, Prophet, SciPy, NumPy, Flask, Pandas, Hugging Face
Development Tools: Docker, Git, DagsHub, Google Colab, VS Code
Cloud Technologies: Azure, AWS
Web Development: HTML, CSS, AngularJS, Angular 2+

Experience

AI Applications Developer – Copani Jan 2025 – Present
- Developing and automating AI-driven customer service solutions using NLP (Hugging Face) and machine learning models, improving client communications via email and calls with personalized responses.
- Integrating advanced machine learning algorithms into both internal and client-facing applications, optimizing data management, ensuring scalable systems, and improving operational performance.
- Led NLP model development, analyzing 500k+ records, performing statistical analysis, visualizing data, and implementing APIs for seamless integration, while ensuring ethical AI practices and bias mitigation.

Software Developer Intern – ValueLabs Jan 2023 – May 2023
- Led the development and optimization of key modules for the *Cox Automotive project*, leveraging AngularJS and .NET for optimizing database interactions and business logic, resulting in improved system performance, efficiency, and scalability.
- Collaborated with cross-functional teams, leveraging technical expertise in software development to drive efficiency, resulting in a 15% reduction in processing time for core operations.

Data Science Intern Trainee – Skill Vertex March 2022 – April 2022
- Developed a Python-based machine learning model to predict employee promotion rates, utilizing data preprocessing, feature selection, and ensemble learning techniques to achieve high prediction accuracy.
- Conducted exploratory data analysis (EDA) and model evaluation using Scikit-learn and Matplotlib, delivering actionable insights to support decision-making processes.

Projects

Customer Segmentation
- Implemented customer segmentation using PySpark and Hadoop, leveraging distributed computing for efficient processing of large-scale transactional data.
- Applied clustering algorithms to identify distinct customer groups, enabling data-driven marketing strategies and improved customer retention.

Medical Insurance Charges Prediction
- Addressed missing values, handled outliers, normalized numerical features, and applied PCA, reducing dimensionality by 70% while retaining 85% of the key predictive features.
- Engineered and implemented an ML pipeline with Docker, integrating preprocessing, feature selection, and hyperparameter tuning, improving accuracy by 15%, and visualizing results with a Streamlit app.

Multi-factorial Assessment of Economic Data
- Conducted a multifactorial study of minimum wage policies using statistical analysis and machine learning techniques (Random Forest, Linear Regression, Lasso Regression).
- Employed time series analysis to gain long-term insights into economic policy impacts.

Akinator-inspired Web Application
- Created a web application using Python and machine learning (Naive Bayes, decision trees) achieving 80% prediction accuracy in guessing a character chosen by user.
- Designed a seamless front-end experience utilizing HTML, CSS, Java Script combined with Flask for the backend.