Jayani Tripathi

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

 $Bachelor\ of\ Science\ in\ Data\ Science\ (Informatics),\ Minor\ in\ Computer\ Science$

Sep. 2021 - May 2025

Major GPA: 3.5, Dean's List Fall 2023

Relevant Coursework: Artificial Intelligence, Data Structures & Algorithms, Discrete Math, Business Analytics & Intelligence, Mobile Health Sensing and Analytics, Data Analytics with Python, Web Programming, Statistics, Data Management, Game Theory, Computer System Principles, Data Mining in Business, Microeconomics

TECHNICAL SKILLS

Languages: Python, SQL, R, JavaScript, HTML/CSS, C/C++, Java

Analytics: Microsoft Excel, Tableau, Pandas, SAP Analytics Cloud, NumPy

EXPERIENCE

GPA Data Analyst

Sep 2024 – Present

Amherst

 $University\ of\ Massachusetts\ Amherst$

- Analyzed 100,000+ transcripts and re-calculated the GPA of prospective UMass students using MBHE standards.
- Helped normalize high school transcripts for UMass admissions, ensuring consistency in evaluation criteria.
- Ensured data accuracy and compliance by conducting rigorous cleaning, validation, and standardization tailored to MBHE admissions policies.

Data Analyst Intern

Jun 2024 – Sep 2024

NASSCOM: National Association of Software and Service Companies

Hybrid

- Developed "Advancing Healthcare in India: Navigating the transformative impact of AI report "
- Conducted 10+ interviews with CEO's and executives from healthcare and technology sectors to discuss their companies' investments in AI projects.
- Developed data visualizations using Excel and Tableau. Presented insights informed by primary research findings.

Research and Development Intern

Jun 2023 – Sep 2023

REMI: Regional Economic Models, Inc.

Amherst, MA

- Refined economic forecasting models and developed insightful data visualizations for clients, which helped identify key trends in various scenarios.
- Ensured forecast accuracy through model testing, resolved software bugs, and improved reliability for 500+customers, boosting renewals by 10%.
- Extracted and cleaned government data in Excel, applying KNN imputation for missing values, and contributed to the State DOT project assessing economic impacts.

Projects

 $Jun\ 2024 - Sep\ 2024$

- Developed and trained a Convolutional Neural Network (CNN) for sign language recognition using the MNIST Sign Language dataset, utilizing TensorFlow and Keras frameworks. Achieved a model accuracy of over 98% by fine-tuning hyper parameters such as learning rate, batch size, and dropout rates.
- Implemented image normalization, grayscale conversion, and augmentation (rotation, scaling, flipping) using OpenCV and NumPy to improve model robustness.

Fall Detector using Gyroscope | Mobile Health Sensing and Analytics | Python

December 2023

- Data Collection: Utilized SensorLogger to collect gyroscope and accelerometer data, aggregating them into a unified CSV file, then processed the data to compute magnitude based on the model called.
- Utilized a Decision Tree Classifier to train on extracted features for fall detection, subsequently visualizing decision trees and confusion matrices for comprehensive model evaluation and analysis

ASA DataFest | American Bar Association | Python, Excel

Mar 2023

- Manipulated datasets to find the historical growth trends within legal categories over 6 years to anticipate the demand for specialized lawyers with 87% accuracy using random forests model.
- Manipulated data sets of legal advice given online by lawyers to clients, found the resolution rate of cases, used sentiment analysis to find the customer satisfaction rate.