Uday Puvvada

Boston, MA •(508)-475-8034 • puvvada.u@northeastern.edu • LinkedIn

EDUCATION

Northeastern University, Boston, MA
MS, Data Analytics and Engineering
Relevant Coursework: Natural Language Processing, Statistical Learning for Engineering, Data Mining, Data Management, Operations Research

Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat
Bachelor Of Technology (Chemical Engineering)
Relevant Coursework: Mass Transfer operations, Heat transfer operations, Chemical Reaction Engineering, Transport phenomenon, Process and Equipment design, Chemical Engineering Techniques

WORK EXPERIENCE

Machine Learning engineer | Artificial Intelligence | SaayamForAll | Boston **Mar 2025 –present**

- Implemented Operations Based Algorithms using python for Volunteer-Emergency associations
- Integrated Meta AI APIs into the SaayamForAll infrastructure using Meta APIs.
- Established S3 bucket connections using Amazon SDK for data analytics and machine learning implementations. Used Amazon Sage Maker for machine learning model pipeline automation.

Team Lead | Custom Development | Pharmaace | Pune **Jan 2022 – Dec 2022**

- Constructed a highly scalable web application business tool, deploying Angular 12 framework, executing analytics, data modelling engine and chart engine with reporting on the go focus.
- Implemented Model as Code architecture to create Data relations and models in the UI.
- Architected and developed an NLP based text parsing Formula Engine, with data transformation and custom field creation capabilities.
- Integrated SQL, Excel and python data importations into the Analytics tool.
- Used in-memory browser caches for enhanced query speeds and reduced read Database request latencies.

Data Analyst | SFE | Pharmaace | Pune **Jun 2019 – Dec 2021**

- Optimized and automated product market forecasting model for Multiple myeloma for a market of 15 products. Wrote VBA code to automate the entire model
- Audited the weekly and monthly Incentive Compensation payout dashboards in tableau for an organization having an employee strength of 680. Generated score cards for employes in every quarter

ACADEMIC PROJECTS

NLP-Based Genre Prediction Model of Wikipedia Movie plots **Dec 2024**

- Developed an end-to-end machine learning pipeline to predict movie genres using Natural Language Processing (NLP) techniques, leveraging feature engineering, model optimization, and deep learning.
- Engineered features using TF-IDF, Word2Vec, Glove, and BERT embeddings to capture semantic relationships.
- Built multi-label classification models using Deep Learning LSTM based models (76% accuracy) and DistillBERT (88% accuracy).

In-Vehicle Coupon Recommendation System **Dec 2023**

- Developed a classification model aimed at assessing whether customers utilize the coupons provided to them for various services during their journey to their chosen destination
- Implemented dimensionality reduction and Regularization, trained parameters using K-fold validation
- Ensembled various classification models (Naïve Bayes, SVM hard and soft, logistic regression) to achieve a performance accuracy of 87%

Data Management for Chemical Logistics — Dec 2023

- Designed and implemented SQL (MySQL) and NoSQL (MongoDB) databases, creating ER and UML models for structured logistics data management.
- Integrated Python (Jupiter Notebook) for advanced SQL querying, exploratory data analysis (EDA), and visualizations (scatter plots, bar charts, pie charts) to extract actionable insights.
- Identified inefficiencies in shipment delays, chemical demand trends, and customer satisfaction metrics, leading to data-driven optimizations for improved revenue and logistics efficiency.

Energy Production Forecast Based on Weather Conditions — Sept 2023

- Needed to find a model which would accurately predict energy productions for the day using weather conditions outside
- Tested both traditional and several case study models (RNNs and CNN-hybrid models) for the task
- Found that using CNN-LSTM models increased model performance by 5-fold, compared to ensemble models

NFL Player Performance Dashboard — Mar 2023

- Required to design a player and team reporting dashboard to help drafters choose their fantasy team
- Designed a forecasting dashboard model in tableau for drafting NFL players by analyzing last 5 seasons game log data

TECHNICAL SKILLS

Languages:	T-SQL, Python, R-language, C sharp, JavaScript, HTML, LINGO
Big Data Technologies:	Hadoop, Spark, EMR
Cloud Platforms:	Amazon Web Services
Visualization Tools:	Tableau, Power BI, Qlik
DBMS:	MySQL, Mongo DB, Snowflake