



Gayathri Madepalli

Data Scientist

Accomplished Data Scientist with enriched background of 1.6 years in the field, combining a year-long immersive internship with an additional 6 months of dedicated full-time engagement. Adept at proficiently collecting, analyzing, and interpreting expansive datasets, I specialize in developing innovative forecasting models. My skill set is marked by exceptional analytical acumen, a meticulous attention to detail, and a remarkable ability to collaborate effectively within a team dynamic. My professional journey reflects a commitment to excellence in leveraging data for meaningful insights and strategic decision-making.

Contact

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Address

Hyderabad,India

Education

2023

B.Tech

IIIT-Nuzvid

Higher Secondary Education - 93%

Expertise

Programming Languages: Python,SQL

AI: Machine Learning , Deep Neural Learning, Computer Vision

Tools:AWS S3, AWS Lambda, AWS Sagemaker, Git,Github,Linux AWS Cloud Formation, Fastapi, MS-Excel,Docker

Familiar with: Tensorflow,Scikit-learn, Numpy,Pandas, Matplotlib, Seaborn, Keras

Core: Statistical Modelling, Algorithms, Calculus

Certifications

Successfully completed IBM Machine Learning on COURSERA

Successfully completed IBM Data Visualization on COURSERA

Successfully completed IBM Data Analysis with python on COURSERA

Successfully completed IBM Python for data science and AI course on COURSERA

Experience

ML Engineer

Aug(23)-Dec(23)

Samkhyaa Consulting and Reasearch (p) ltd | Hyderabad, India

Credit card delinquency:

Contributed to a data project by collecting information from AWS S3 and setting up automatic processing with Lambda using AWS CloudFormation. Used UpSampling,downsampling to balance data for better modeling and conducted a detailed check for outliers and missing values. Improved model accuracy with smart validation techniques, predicting loan defaults based on factors like debt, dependents, and salary. Built a highly accurate classification model using the random forest algorithm and crafted user-friendly APIs in FAST-API. Maintained a well-organized Git repository for updates and facilitated seamless teamwork.

Car License Plate detection

Led the development of an innovative car license plate detection system utilizing the YOLOv3 algorithm. Collected diverse datasets, balanced through UpSampling and Downsampling, ensuring robust performance across varied scenarios. Rigorously addressed outliers and missing values for dataset quality. Implemented the YOLOv3 model for accurate license plate identification, offering real-time capabilities for applications like automated toll collection and security systems. Crafted user-friendly APIs using FAST-API for seamless integration. Maintained a well-organized Git repository to facilitate collaboration and updates. This project highlights my expertise in computer vision, deep learning, and practical solution engineering for real-world applications.

ML Reasearch Engineer

Nov(22)-Aug(23)

Bolzmenn Labs private Limited (internship) | Hyderabad, India

Reaction Class prediction:

Conducted data cleaning on a sizable USPTO-MIT dataset comprising 800,000 data points. Utilized a BERT classifier to analyze and convert data into smiles fingerprints for chemical molecule identification. Built a K-nearest neighbors (KNN) classifier to predict reaction classes with precision. Evaluated the model's effectiveness using the F1-score metric. Developed user-friendly APIs with the state-of-the-art FAST-API framework for smooth model interaction. Maintained a Git repository to track updates and ensure collaborative development throughout the project.

Yield prediction:

Performed data cleaning on a vast USPTO-FULL dataset with 1.8 million data points, using the RDKit library to analyze and convert data into chemical molecule fingerprints. Initially created a regression model with fingerprints, but adjusted it to a classification model based on intuitive decisions, such as threshold modifications, due to challenges in achieving desired accuracy. Evaluated the model's effectiveness using accuracy and F1-score metrics. Developed user-friendly APIs with the advanced FAST-API framework for easy model interaction. Maintained a Git repository to track updates and ensure collaborative development throughout the project.