



Amit Kumar Gupta

Product Engineer - NLP

Contact

Address
Bangalore Karnataka

Phone
9060211542

E-mail
amitinger25@gmail.com

WWW
<https://bold.pro/my/amitkumar-gupta-231012212108/331>

Skills

PyTorch

SQL

Django

CI/CD

Scikit-Learn

Numpy

Pandas

SpaCy

NLTK

Huggingface

MLflow

Model packaging

Accomplished Data Scientist especially in Natural Language Processing (NLP) and Generative AI using LLM with a passion for delivering valuable data driven projects through analytical functions and Predictive modeling using ML. Have worked with structured and unstructured data and proficient in building NLP pipeline.

Work History

2023-02 -
Current

Product Engineer-NLP
Vijna Labs Pvt. Ltd, Bangalore North
Project : NAS producttization

- Worked on insurance excel dataset and other unstructured data such as PDFs.
- Replaced legacy rule based system with an AI solution with performance enhancement from 35% to 91%
- Conducted descriptive and inferential statistics, hypothesis testing, and data visualization for model validation.
- Performed NER and POS tagging for feature engineering using SpaCy and Bert.
- Used PCA for clustering of the companies based on other financial metrics as financial healthy or unhealthy.
- Worked with and applied various deep learning and machine learning models such as RNN, LSTM, Transformers, BERT, RoBerta, XGBoost
- Experimented and built POC using Generative AI, prompt engineering on LLM such as Llama 2 for text extraction.
- CI/CD for code version control using Azure DevOps.

2022-03 -
2022-10

Research Scientist - While Doing Masters
Ciena India Pvt. Ltd, Pune
Project : Action recommendation engine

- Collaborated on the development of Action Recommendation Engine
- Implemented prototyping (POC) rapidly and effectively for detecting alarms and anomalies in time series data, utilizing KMeans and DBSCAN clustering algorithms
- Conducted root cause analysis from failures using confusion metrics and predictive analytics using XGBoost
- Collaborated with clients and subject matter experts, presenting ideas in weekly meetings
- Conveyed and did brainstorming on the ideas for further improvements and extracted valuable insights from ticket logs to correlate and address root causes.

2020-10 -
2022-10

M.Sc - Research
Universität Siegen, Siegen, Germany
Project : Visual Explainable Classification of Pneumonia medical Chest X-Ray images.

- Performed statistical, qualitative, and quantitative analysis.

Model monitoring

ML pipelines

MLOps

- Image pre-processing using Keras and NumPy for making the data compatible for the available computational resources.
- Custom Neural Net were made to explain the output of the model tot he user. Model cross validation using AUC metric score.

Project: Text classification:

- Worked for a early stage startup to improve text classification.
- Used Bert, RoBerta and T5 models.
- Performed training and fine-tune NLP models for text classification and text summarization.

Project: Reconstruction of human body from point clouds.

- Worked with 3D point clouds.
- Used the optimization model to minimize the loss and get the best fit model.
- Extensively used linear algebra for optimization using Matlab.

2017-11 -
2019-08

Programmer Analyst - Data Scientist

Cognizant Technology Solutions Pvt. Ltd, Bengaluru

Project : Rent-A-center Product recommendation (PoC)

- Conducted extensive Exploratory Data Analysis (EDA) and applied advanced feature engineering techniques to customer data, unveiling crucial insights and patterns that informed data-driven decision-making
- Collaborated seamlessly with the team to conceptualize, develop, and implement a cutting-edge recommendation system for personalized product recommendations to users, enhancing the user experience.

Education

2019-05 -
2023-05

Master of Science: Mechatronics Engineering

Universität Siegen - Germany

2013-08 -
2017-05

B.Tech: Mechanical Engineering

KIIT University - Bhubaneshwar, Odisha

Certifications

2022-01

Data Science - Univ.Ai

2022-02

AWS ML

2023-09

Generative AI - DeepLearning.AI

2024-03

MLOps Bootcamp - Udemy