PARTHIV A DHOLARIA

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Education

B.Tech , Indraprastha Institute of Information Technology, Delhi   **2021 - 2025**
- Computer Science and Engineering | CGPA: **8.42**

Bhavans Public School , Doha , Qatar   **2020 - 2021**
- *AISSCE (Class XII), Percentage: 94.2 %*

Skills

C++ | C | Java | Python | Machine Learning | Deep Learning | CV | NLP | HTML | CSS | JS | MySQL | Django | Git | Mongo |

AWS

Work Experience

Ripik.Ai | ML Engineer   **May'25 - Present**
- Creating training and deployment ML pipelines for Detection , Tracking and Counting CV use cases for PGP Glass and IMFA. I have trained YOLO models for detection and segmentation and used GDINO wrappers to build CV solutions.
- Also worked on Optimizing the Ripik Optimus to improve the Production planning and Manpower scheduling for Sunpharma Pharmaceuticals and Sai Life LTD.

NX Block Trades Pvt. Ltd. | ML Intern   **Jan'25 - May'25**
- Worked upon Real time high frequency monthly options data. Analysed strategy and Performed Backtesting.
- Implemented Quantile Regression to generate ON/OFF signals for the strategy. Improved the cumulative profit of the firm.

CISPA-Helmholtz center for Information Security , Germany | Summer Intern   **May'24 - Jul'24**
- Analysed the vulnerabilities in TLS handshakes and developed a ML system to detect attacks on servers.
- Automated the attacks on different servers and developed a pipeline for curating dataset , training and evaluation.

Projects

NumerAi: crowd-sourced hedge fund data- science Competition | Github   **Nov'24**
- Predicted the stock returns of unknown stocks on Live data given the varying number of market features and concept drift.
- Implemented Metric based Meta learning approaches like Matching and Prototypical Networks.
- Best Correlation with Target : 0.0221. Corr Ranking : 1376/2117 & MMC ranking : 894/2117 (as of Nov'24).

Evaluating Mathematical Reasoning of LLMs | Github   **Nov'24**
- Tested LLMs like : Mixtral-8x7b , LLama-3.1-8b, Gemma-9b on SVAMP , GSM8k and GSM-Hard dataset.
- Implemented novel MultiAgent Framework with specializer and master combined with RAG.
- Other techniques: ZeroShot , CoT , ReAct , RAG , Teacher-Student Model. Metric : Accuracy (Best : 100%).

Textual Emotion-Cause Pair Extraction in Conversations | Github   **Apr'24**
- A two-step pipeline architecture is introduced to identify emotion-cause pairs.
- First : Emotion classification done for the utterances using a novel architecture. Second : a Question-Answer model to identify causes for the target utterance based on the identified emotions.
- Ranked 5th in Subtask 1 CodaLab Competition for the SemEval-2024 Task3.

Convolution & Transformer based SOTA Object Detection models | Github   **Apr'24**
- Reproduced the Official Paper's results for DETR and EfficientDet on COCO Dataset.
- Performed Qualitative and Quantitative Analysis (TIDE Analysis) on an unknown dataset (PASCAL VOC 2012).

Achievements

- Received the Dean's Award for Academic Excellence for securing an overall CGPA of 9 for my 3rd year.
- School Topper in 12th CBSE Board exam 2021-22.
- 89.78% accuracy on Google Speech Command Dataset(using GMM) and 59.798 % on Human activity recognition dataset from UCL(using KNN)