Maanya C Bharath

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Education

Shiv Nadar University, Chennai   September 2021 – May 2025
B. Tech Artificial Intelligence & Data Science   *CGPA: 8.667/10.0*

Experience

HCL Technologies   May 2024 – July 2024
Data Science & Machine Learning Intern   *Chennai*

Predictive Maintenance | *Python, Tensorflow, PySpark, MS Fabric*
- Performed hard drive failure classification using Machine Learning models (XGBoost), anomaly detection with neural networks (Long Short Term Memory) and deployed the project end-to-end on Microsoft Fabric Data Engineering platform.
- Scaled the project on MS Fabric using Data Activators – set up real-time alert system for hard drive maintenance scheduling with an accuracy of 97%.

Automated Migration of PowerBI Reports onto MS Fabric | *Python, PySpark, MS Fabric, PowerBI*
- By leveraging MS Fabric's integration capabilities, I developed scripts to transferred data models, report structures, and visual elements while maintaining data consistency during the migration resulting in reduced manual intervention and minimized downtime.

ANB Systems   May 2023 – June 2023
Data Science Intern   *Chennai*

Generative Chat-bot for Technical Assistance | *Python, SQL*
- Worked with a team of 5 to develop and train a GenAI Chat-bot to assist with technical queries for employees (specifically Business and Data Analysts).

General Tasks | *Python, Tableau, SQL, MongoDB, MS Office*
- Performed data collection, cleaning, flattening and visualization for projects deployed by the data science department, including sentiment analysis, anomaly detection and generative chat-bots. Prepared technical demonstrations and documentations for the mentioned projects.

Projects

Ethnographic Identification of Distracted Driving patterns in Naturalistic Contexts | *Python, OpenCV, Tensorflow* (on-going)
- Developed light-weight architecture to perform video action recognition of distracted driving leveraging MobileNetV3, RNN (LSTMs) in real-time with an accuracy of 82%. Currently working on a paper to submit to the "VISAPP 2025" conference under the guidance of Dr. Jiji CV, CSE Dept., SNUC

Study of ML and Big Data applications in air-gapped networks | Air gaps, ML, Computer Networks, Big Data
- Research project on the use of ML in securing air-gapped systems. Currently writing a review paper along with Dr. Sundharakumar KB, CSE Dept, SNUC

Script-to-Story Text Summarizer | *Python, BERT , PyTorch*
- Built an LLM-based text summarizer that took scripts (with dialogue) as input and output a summary of the story with an 85% accuracy.

Low-Light Detection | *Python, OpenCV, Tensorflow, PyTorch*
- Worked on the NTIRE challenge to enhance images will low lighting conditions by developing a network with computer vision technology.

Positions of Responsibility

Editor, SiNEWS (University Newsletter) Editorial Board   September 2021 – April 2024
- Managed 15 student editors on rotation and authored articles on internal events, tech trends and latest research in the fields of AI and Data Science.

Content Creation and Teaching Intern, Dhrithi Program, Bhoomika Trust (NGO)   August 2021 – December 2023
- Created content for 170+ topics, taught students aged 10-13 weekly and conducted orientation drives to mentor new interns across villages in India.

Certifications

Joy of Computing with Python (NPTEL), Blockchain and its Applications (NPTEL), Advanced R programming for Business Analytics (NPTEL)