Malladi Pradyumna

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EDUCATION

Birla Institute of Technology and Sciences Pilani, Hyderabad, India   Sep, 2021 - May, 2025

Computer Science Engineering (Major) | Data Science (Minor) | CG: 8.36

- Courses: Linear Algebra, Probability and Statistics, Computer Programming, Object Oriented Programming, DBMS, Operating Systems, Machine Learning, Foundations of Data Science

EXPERIENCE

Paralleldots   May, 2023 - Aug, 2023

Data Science Intern   *Gurgaon, India*

- Training and evaluating SOTA Object Detection Models like yolonas, yolov5 on Retail Datasets.
- Used extensive shell and python scripting to preprocess the dataset and trained on a remote Nvidia Gpu.
- Wrote training and evaluation scripts to generate metrics and compare different models.

PROJECTS

ML for Water Quality Parameters Estimation   Sept, 2023 - Jan, 2023

Under Dr Anmala Jagadeesh,   *BITS Hyd*

- Constructed and compared several Machine Learning models to accurately predict Water Quality Parameters like Chlorophyll-a from Satellite Hyperspectral Data.
- Achieved Test R2 values upto 0.8.

Implementation of Fundamental Machine Learning Models   Sept, 2022 - Dec, 2023

Machine Learning, Foundations of Data Science,   *BITS Hyd*

- Developed and implemented a diverse set of Machine Learning algorithms in pure NumPy and C++.
- Covered foundational algorithms, including Perceptron, Artificial Neural Networks (ANN), Fischer's Linear Discriminant Analysis (LDA), Logistic Regression, Principal Component Analysis (PCA), and Linear/Polynomial Regression.
- Applied theoretical knowledge in practical scenarios such as Cancer Cell classification based on tumor characteristics, MNIST digit classification, and Housing Data analysis.

Retrieval Augmented Generation   Sept, 2023 - Dec, 2023

ACM,   *BITS Hyd*

- Led a Student Team in the development of a Retrieval Augmented Generation (RAG) application using Python, Flask, and SQLite.
- Used an Object-Oriented Approach to facilitate the integration of various Language Models (LLMs) and Embedding Generators.
- Application was tested on the Course Handouts of Bits Hyderabad.

Skills

- Programming Language: Python, C, C++, SQL
- Foundational Concepts: Linear Algebra, OOPS, DBMS
- Skills: Data Science, Machine Learning, Deep Learning, Web Development, Relational Database Management
- Toolkits/Libraries: Numpy, Pandas, Pytorch, Linux, Matplotlib, VSCode

Extracurricular Activities

- Machine Learning lead at the Association of Computing Machinery (ACM), Bits Hyderabad Chapter.
- Member, Society for Open Source Software, Sanskrit and Foreign Languages, BITS Hyderabad
- My hobbies include Recreational Programming, Reading, and playing the occasional Tennis.