Malladi Pradyumna

Bachelor of Engineering, BITS Pilani

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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: Computer Programming, Object Oriented Programming, DBMS, Operating Systems, Theory of Computation, 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

Twitter Clone Backend — Sept, 2022 - Dec, 2023

Backend, Database, Auth, Docker — *BITS Hyd*

- Made a backend for a Twitter Clone using the Actix-Web Framework (Rust).
- Used Redis for Session Management, MySQL for Primary Database, SolidJS for test frontend and Rust for writing the Rest API-s.
- Implemented features like Auth, Creating/Deleting/Replying to a tweet, fetching the tweet chain for a given tweet, User-User relationships, timeline suggestion using collaborative filtering, etc.

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

Machine Learning, Data Science, Numpy, C++ — *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

Applied Machine Learning, Backend, Flask, BERT — *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, Rust
- 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, Docker, 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.