# Malladi Pradyumna

**LinkedIn:** https://www.linkedin.com/in/malladi-pradyumna/

Website: https://www.malladipradyumna.com

Address: Lekha Apartments, Khairatabad, Hyderabad, India

Email: f20210367@hyderabad.bits-pilani.ac.in

Github: https://github.com/mssrprad

**Tel:** (+91) 8977008246

### **EDUCATION**

## Birla Institute of Technology and Sciences Pilani, Hyderabad, India

Sep, 2021 - May, 2025

Gurgaon, India

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

- 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

Personal, 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, 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 Hvd

- 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.