

# MAYANK TADALA

✉ mayank.tadala@research.iiit.ac.in | in LinkedIn | GitHub | IIIT Hyderabad

## EXPERIENCE

### Application Developer

Jan 2025 – April 2025

Perceptive Analytics

- Developing a Telugu Input Mobile Application with Speech to Text and Handwriting to Text.
- Project being done as part of requirements for the Design and Analysis of Software Systems course at IIIT-H

## PROJECTS

### Custom Linux Shell

GitHub

- Linux shell, written in C. Support for process management, piping/redirection and built-in as well as system commands
- Enabled user-defined aliases for enhanced customization.

### ReinforceEigen

GitHub

- Finds eigenvalues and eigenvectors of given matrix using RL
- Developed a Reinforcement Learning algorithm with Proximal Policy Optimization (PPO) for solving eigenvalue problems
- Uses a deep neural network architecture to effectively model the policy and value functions

### Classical Machine Learning Techniques Implementations

GitHub

- Implements Linear Regression with Regularization using Gradient Descent for Predicting Food Delivery Times
- Decision Trees using Gini Inequality and compares accuracy with SciKit's Decision Tree for predicting transaction frauds
- Implements SLIC with K means and does Video segmentation

### Deep Learning Techniques Implementations

GitHub

- Implements MLP Regressor using Forward-Feeding and Backpropagation for Houses Price Prediction in Bangalore.
- Implements MLP Classifier using ForwardFeeding and Backpropagation for Multi-Label News Article Classification.
- Implemented Principal Component Analysis (PCA) from scratch and applied it to the MNIST dataset in order to reduce dimensionality and improve performance of MLP classifier.
- Implemented Variational AutoEncoder that is trained on the MNSIT dataset to generate similar-as-such new images.

### Networking File System

GitHub

- This project implements a basic Network File System (NFS) using a client-server architecture with a Naming Server, Storage Servers, and Clients. The key components work together to manage file storage and ensure that clients can access and modify files across multiple storage servers
- The system facilitates file operations such as reading, writing, copying, deleting, and streaming audio files.

### Diet Manager Cli

GitHub

- An command line tool to keep track of day to day consumption.
- Written in Java with proper OOP design along with proper documentation and uml diagrams

### BuySell-web

GitHub

- Java-based CLI tool for tracking daily consumption with OOP design, docs, and UML diagrams.

## TECHNICAL SKILLS

**Languages:** Python, C, C++, JavaScript, SQL, Bash **Tools:** Git, Markdown, Linux, LaTeX  
**Libraries:** Pandas, NumPy, OpenCV, Matplotlib ,Py-Torch

## RELEVANT COURSES

**Programming:** Computer Programming, DSA, Data Applications

rithm Analysis and Design.

**Mathematics:** Linear Algebra, Probability and Statistics, Discrete Mathematics, Numerical Algorithms, Algo-

**System Design:** Operating Systems, Computer Systems Organization.

**Networking:** Computer Networks, Introduction to IoT.

## EDUCATION

**International Institute of Information Technology Hyderabad**

B.Tech in Computer Science and Engineering and MS by Research

**Vikas the Concept School**

Class XII CBSE; 84%

**Hyderabad, India**

Expected: 2028

**Hyderabad, India**

2022