# ROHITH DANDI

Hyderabad, Telangana

#### **EDUCATION**

#### Mahindra University

2020 - 2024

Computer Science and Engineering - CGPA-7.9

Hyderabad, India

#### **PROJECTS**

Battleship Bot ♂ |

fall '22

• A bot in python that can play the Battleship board game utilizing probability density functions and some predictive algorithms to optimize performance.

## Multi-Stage Deep Learning Project

Course Project-fall '24

- ANN Regression, Neural Machine Translation, and Conditional Language Generation
- Stage-1: The construction and optimization of an Artificial Neural Network (ANN) for regression tasks, leveraging vectorization in Python without the use of deep learning libraries.
- Stage-2: Neural machine translation using Python code provided in a book chapter by Jason Brown Lee
- Stage-3: Extended the stage-2 to incorporate conditional language generation for improved accuracy.

# Interpretable Face Representation Learning with Explainable AI

Feb 2024 - Jun 2024

- Trained state-of-the-art face recognition models (ArcFace, FaceNet, CosFace) on popular datasets like CelebA and CASIA-WebFace, achieving high accuracy and robustness. Evaluated model performance using industry-standard metrics (TPR, FPR) on the LFW benchmark
- Leveraged Grad-CAM for model interpretability and developed advanced saliency mapping methods, including fixed-size masks at various facial locations and the SRISE algorithm with random Gaussian kernel masking. Designed a novel heatmap masking approach utilizing Grad-CAM color-based importance (red for high to blue for least) to identify and visualize image saliency effectively.

## Order Execution and Management System for Deribit Test API

Dec 2024

- Designed and developed a robust Command-Line Interface (CLI) application for trading on the Deribit Test WebSocket API. The application integrates Boost.Beast and Boost.Asio for secure, asynchronous WebSocket communication and leverages Boost.Program Options to enable flexible and intuitive CLI functionality.
- Designed comprehensive features, including order execution, market data retrieval, and real-time subscription handling, supported by thread-safe queues and multi-threaded I/O.Achieved an average order placement latency of 186.95 ms, making the system well-suited for algorithmic trading and strategy development, while acknowledging its limitations for high-frequency trading (HFT).

#### RESEARCH PUBLICATIONS

• "Soybean Genome Clustering Using Quantum-Based Fuzzy C-Means Algorithm", The 30th International Conference on Neural Information Processing, ICONIP, Nov' 20-23, 2023, Changsha, China.

#### PROFESSIONAL EXPERIENCE

# Mahindra University

Jan 2023 – Jan 2024

Research Intern

Hyderabad, India

• Worked as a Research Intern for Professor Dr. Om Prakash Patel (P.h.D., IIT Indore, Faculty at Mahindra University, India).

# Mahindra University

Feb 2024 - Jun 2024

Research Intern

Hyderabad, India

• Worked as a Research Intern for Professor Dr. Nidhi Goyal (Ph.D. in Computer Science, IIIT-Delhi Faculty at Mahindra University, India).

#### TECHNICAL SKILLS

**Languages:** Python, C, C++(Proficient), Java

Web Development: HTML, CSS, JavaScript, React, Redux

Tools/Technologies: PyTorch, Tensorflow ExpressJS, NodeJS, Git, GitHub, MATLAB, AutoCAD, LATEX,

GitHub, Git.

# **ACHIEVEMENTS**

# ICPC Mathura-Kanpur regional 2022/2023

Top 10 merit scholarship, Computer Science, Mahindra University (2020/21, 2021/22).

# **Academic Credentials**

- Secured OBC-NCL Rank 3998 in JEE (Advanced)
- Scored 96.46 percentile in JEE Main (B.Tech)

# **INTERESTS**

- Data Structures and Algorithms
- Competitive Coding

- Graph Theory
- Artificial Intelligence
- Combinatorics and Probability