**PLACEMENT PROJECTS**

Lets see my projects. All projects available [here](https://github.com/harithar1234/Projects_Placements) .

We have two sections :

* Artificial Intelligence Projects
* Computer Science and Engineering Projects

***Artificial Intelligence***

1. **[Object Detection with Voice feedback](https://github.com/harithar1234/Projects_Placements/tree/main/Object%20Detection%20with%20Voice%20feedback)**

* implemented yolov3 algorithm and used pretrained model weights to detect multiple objects in one image.
* used the google text to speech API to generate audio file describing the objects in the image.
* The model identified objects with a confidence of about 99%.

1. [**Chatbot**](https://github.com/harithar1234/Projects_Placements/tree/main/Chatbot_food_delivery)

* Implemented a retrieval-based chat-bot (named Haritha).
* This Chatbot is specifically designed to mimic the chatbots of Food delivery platforms. It uses Natural Language Processing and Deep learning.
* The chatbot achieved an accuracy of 98% in generating appropriate responses.

1. [**MNIST Image Classifier**](https://github.com/harithar1234/Projects_Placements/tree/main/MNIST%20Image%20Classifier)

* Implemented each of the components of a convolutional neural network (CNN) from scratch, including backpropagation.
* Using this network built an image classifier trained on MNIST dataset for digit classification and attained accuracy of 88%.

1. [**Steganalysis**](https://github.com/harithar1234/Projects_Placements/tree/main/Steganalysis)

* Implemented deep learning model for Alaska2 dataset's JPEG Image Steganalysis to detect JUNIWARD-encoded messages in JPEG images.
* Using less than 20% of the data for training got an accuracy of 0.6 for trained model.

1. [**Hackathons**](https://github.com/harithar1234/Projects_Placements/tree/main/Hackathons)

* Achieved Score: 0.87337 of Kaggle challenge named "Is the driver at fault?".
* Achieved Score: 0.99828 of Kaggle challenge named "Digit Recognizer".

1. [**Analyzing Laptop Specifications**](https://github.com/harithar1234/Projects_Placements/tree/main/Analyzing%20Laptop%20Specifications)

* A data-driven analysis of laptop specifications was conducted, uncovering valuable insights and market trends that facilitate informed decision-making for laptop purchases and market analysis.

1. [**Tic Tac Toe**](https://github.com/harithar1234/Projects_Placements/tree/main/Tic%20Tac%20Toe%20)

* Implemented a Q-learning algorithm to train an agent to play the game of Tic-Tac-Toe against various opponents.
* Implemented the Monte Carlo Tree Search algorithm for playing Tic-Tac-Toe and evaluated its performance against random and safe opponents.

***Computer Science and Engineering***

1. [**Question paper generator**](https://github.com/harithar1234/Projects_Placements/tree/main/Question%20Paper%20generator%20)

* Implemented automated system for generating unique exam papers, optimizing efficiency and customization through question bank and parameter substitution techniques.
* Streamlined processes of question selection, paper creation, and customization, resulting in improved productivity

1. [**Development and Management of Database**](https://github.com/harithar1234/Projects_Placements/tree/main/Development%20and%20Management%20of%20Database)

* Designed a flexible and efficient relational database from scratch for a scientific research paper inquiry website with the referential integreity maintained.
* Developed informative ER diagrams, efficient relational table schema and retrieved information with complex queries.

1. [**DSA Projects**](https://github.com/harithar1234/Projects_Placements/tree/main/DSA_projects)

used Data structures and Algorithms to implement many real world applications:

* RISC-V Disassembler
* Sorting Visualizer
* File Zipper
* Sudoku solver

1. [**OS Multithreading**](https://github.com/harithar1234/Projects_Placements/tree/main/OS%20multithreading)

* The program utilizes multithreading to parallelize the task of finding perfect numbers, improving efficiency and leveraging concurrent execution.

1. [**Digital Fabrication of Navy Ship**](https://github.com/harithar1234/Projects_Placements/tree/main/Digital%20Fabrication%20of%20Navy%20Ship)

* Designed an 3D model of Destroyer Navy ship using computer-aided design in Solid Edge platform.