MANAN MADAN (madan.manan1@gmail.com) MALE, 19 YRS

EDUCATION

NSIT, DELHI, INDIA
B.E (INSTRUMENTATION AND CONTROL)
EXPECTED AUG 2022
CGPA: 7.3 (TILL 2ND SEM)

APEEJAY SCHOOL PITAMPURA, DELHI.
CLASS12
BOARD PERCENTAGE:89%
CLASS10
CGPA :10.0/10.0

ACHIEVEMENTS AND AWARDS

- Top 1% in JEE Advanced 2018
- Perfect 10 CGPA in Xth Standard
- Distinction in Mathematics and Science tests in IBT (International Benchmark Test) in class IX and X.

POSITIONS OF RESPONSIBILITY

- Senior Software Engineer at Team ARES Robotics
- Class Representative in Class X
- Represented team ARES - NSIT in Indian Rover Championship (IRC), Chennai in 2019

SKILLS

LANGUAGES

C++ • C • PYTHON

FRAMEWORKS

•Robotic Operating System•Gazebo Simulator•Turtlebot simulation

•Natural Language Toolkit (NLTK)•Pandas •Matplotlib •Networkx

•BeautifulSoup•Textblob•Requests•Regex

PROJECTS

- Semantic Relationship and NLP
  - **Improvising Wordnet :** The aim of this ongoing research project is to build use the concept graph built in the previous project and add technical terms in wikipedia using the relation built with wikidata in the previous research projects
  - **Ontology Construction:** The aim of this research project was to build a concept graph from the given notes of a student.The graph is made using Wikidata and NLTK.After this several graph algorithms were applied to applied different inferences from the graph.
  - **Learning Perspective:** The aim of this research project was to analyze teacher's notes in a class and student's notes and understand the learning perspective of a student with respect to the class and provide useful information such as what topics did the student miss in the class etc.
  - **Contextualizer :** The aim of this research project was to make an app for the students which was able to tell how a given picture related to the notes studied in the class. We used web scraping to build an ontology of words and relate the image tag to the notes studied in the class.
- Robotics
  - **Simulating Path Planning Algorithms using ROS Infrastructure(Turtlebot and Gazebo):**In this project , we used the previous coded planner with the turtlebot differential drive robot to simulate the rover on martian surface
  - **Coding Kinodynamic A* Path Planning Algorithm with simulation in OpenCV:** In this project , we coded a path planning algorithm that takes into consideration the robot's constraint while planning the trajectory. Further I also simulated it in OpenCV for testing purposes.
  - **Lane Detection Using OpenCV:** In this project lane detection was performed using the canny edge detector , by using the footage from the DASH-CAM of a car.
- Arduino Based
  - Line Follower Robot:Built using arduino , it was a car that could follow a black line . I used 2 Light Sensors to achieve this purpose.
  - Bluetooth Car Using Arduino: This car was built using the bluetooth module of Arduino.The main aim of this project was to control the arduino car using the phone app.

CERTIFICATIONS & COURSEWORK

- Data Structures(University of California, San Diego)
- Algorithms on Graph(University of California,San Diego)
- Algorithms and Data Structure(University of California,San Diego)
- C++ and Data Structures(Coding Ninjas)
- Arduino Programming (Udemy)