Aditya Bhatt

Computer Science and Engineering
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Education

•Shiv Ashish *2021*
Higher Secondary Certificate Exam CGPA/Percentage: 90.2

•Nirma Vidyavihar *2019*
Secondary School Certificate Exam CGPA/Percentage: 90.8

Personal Projects

•Self Driving Car Simulation *March 2023*

The project consists of 2 implementations that are using neat and dqcn (both are independent of each other).

- Tools & technologies used: Python, NEAT library, Tensorflow library, pygame library
- The Neat-based approach uses 30 cars simultaneously for training the CNN model. Whereas the DQCN-based approach uses the method of Reinforcement Learning (1 car at a time). In both cases, the CNN was limited up to 2 layers. The cars initially would be placed on a track, on which the CNN will drive them. If the car collides with the wall the simulation will be reset, prioritizing each move and fitting it into the model for updating its weights. The farther the car moves, the more fitness value is gained.
  https://github.com/Ahb1104/Self-driving-car-simulation-ANN-DQCN

•Library Management System *November 2022*

The project helps in managing the library with ease, by reducing the fatigue of scripting the records manually.

- Tools & technologies used: Java, MySql, JDBC
- The front end of the project is handled by Java, and the back end relies on MySql. The database contains the record of students, librarians,login details for each, and the details of the issued books by each student. It provides various features like issuing, viewing a list of available books, and returning the issued books.
  https://github.com/Ahb1104/library-management-system-GUI-and-Mysql

•Vaccination management system

The project helps in managing and prioritizing the Vaccine scheduling, by reducing the fatigue of scripting the records manually.

- Tools & technologies used: c,DSA
- The project uses a dynamic memory allocation approach and basic concepts of data structures and algorithms. It uses priority queues in the form of a linked list to schedule the citizens according to age as well as job description. It can act as the management program for vaccination centers.

Technical Skills and Interests

Languages: Python, Java, C, C++, Sql, MySql
Developer Tools: HTML, CSS, JS
Soft Skills: Critical Thinking, Leadership and Management, Teamwork, Communication
Areas of Interest: Artificial Intelligence, Deep learning, Machine Learning, Cloud Computing

Research Papers

Machine Learning-based Framework for Malware Detection in Critical Infrastructures for Smart Cities: This paper has been accepted at the Asia Pacific conference on innovation in technology (APCIT 2024). This paper deals with the comparision of various ML models that can be used for malware detection in critical Infrastructures for Smart Cities.
DL-based DDoS Attack Detection in SDN-assisted Heathcare 4.0 Telesurgery Networks: This paper has been submitted at the 5th International Conference for Emerging Technology (INCET 2024).

Achievement and certifications

Community service: Served as a volunteer in the Mobile Health Unit of Deepak Foundation Vadodara, it was a wonderful experience to serve as a volunteer, I had to collect data from patients and feed it into Deepak Foundations software. It reinforced my commitment to community service and the importance of leveraging my skills to make a meaningful difference.
Mastering data structure and algorithms using c and c++ :- Through this course I gained proficiency in advanced data manipulation techniques and algorithmic problem-solving skills in C and C++. This certification signifies a strong foundation in computer science fundamentals and a commitment to continuous learning in the field of data structures and algorithms.