Sanskar Pareta

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EDUCATION

IIT DELHI
B.Tech. in Computer Science and Engineering
2021

MAHESHWARI PUBLIC SCHOOL
CBSE Class - XII
87.4%

MAHESHWARI PUBLIC SCHOOL
CBSE Class - X
CGPA - 10.0

LINKS

LinkedIn:// sanskarpareta

COURSEWORK

UNDERGRADUATE

Data Structures and Algorithms
Introduction To DBMS
Operating Systems
Programming Languages
Introduction to Artificial Intelligence
Computer Networks
Design And Analysis of Algorithm

SKILLS

PROGRAMMING

Python
Javascript
NodeJS
ReactJS
C++
Postgres-SQL
MySQL
OracleSQL
Java
Assembly
OCaml

TOOLS AND SOFTWARES

Git
Express
Flask
Vivado
Linux
Microsoft-Office
Unity

EXPERIENCE

HBSS INDIA | Software/AI-ML Engineer
Jun 2021 - Present | Gurgaon, India

- Led a team that developed and deployed both front end (using **ReactJS**) and back end (using **NodeJS**) modules for HBSS's cutting-edge real-time dispatching and scheduling software, DISP360.
- Demonstrated expertise by creating more than 80 **API** endpoints in different **microservices** and writing new procedures and packages in **OracleSql** to enhance software's functionality and performance.
- Implemented real-time tracking functionality for vehicles and routes in DISP360, enabling dispatchers to receive live updates and efficiently manage drivers and vehicles on roads.
- Established an instant messaging feature within the HBSS driver app and dispatch software, employing **Redis**, resulting in more than 80% improvement in communication efficiency and coordination between drivers and dispatchers.
- Created a **NodeJS**-based Broker Vendor Service, automating trip retrieval from the broker database, performing data mapping, and seamlessly integrating it into the vendor database. Achieved a time savings equivalent to 100 hours of manual file transfers.
- Engineered a driver drowsiness system issuing alerts for drowsy individuals in camera footage. Enhanced the project to incorporate gesture recognition, displaying recognized gestures on the screen via a logical algorithm.

PROJECTS

SEARCH ENGINE USING INVERTED INDEX Dec 2020

- Built an inverted index, a data structure underlying search engines to answer AND, OR and phrase search queries.
- Used a straightforward scoring function based on term frequency and inverse document frequency to assess the relevance of web pages.
- Implemented **Hash Table** and **AVL Tree** from scratch to create the inverted index of web pages and execute queries.

AI BOT FOR CANNON GAME Nov 2020

- Created a bot utilizing depth bound adversarial search along with alpha-beta pruning for finding the best move.
- Designed an appropriate score function for comparing different states.

SECURE MESSAGING INFRASTRUCTURE Aug 2019

- Developed a chat application in **python** that allows users to send encrypted messages which cannot be decrypted by server.
- Used a public-private key-based encryption method to encrypt the messages where public key was available on the server.

SCHOLASTIC ACHIEVEMENTS

- Certified by CBSE for being among the **0.1 percent** of successful candidates in Mathematics in (10 + 2). 2016
- Secured **All India Rank 651** in JEE Main out of **1.4 million** candidates across India. 2017
- Secured **All India Rank 553** in JEE Advance out of **220 thousand** selected candidates. 2017