# 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
Personal:// sanskaridev

## 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
React
C++
MySQL
OracleSQL
Java
Next
TailwindCSS
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