DHRUV RAI | 19QM30002

QUALITY ENGINEERING DESIGN AND MANUFACTURING (MECHANICAL ENGINEERING VERTICAL)(M.Tech Dual 5Y)
MICRO SPL. in ARTIFICIAL INTELLIGENCE AND APPLICATIONS

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH Dual Degree 5Y	IIT Kharagpur	7.98 / 10
2019	All India Senior School Certificate Examination	Central Board of Secondary Education	92.4%
2017	All India Secondary School Examination	Central Board of Secondary Education	10 / 10

SKILLS AND EXPERTISE

Core Competencies: Programming | Backend Development | Web APIs | Machine Learning | Frontend Developement
Programming Languages: C/C++ | Python | JavaScript | SQL
Softwares, Libraries and Framworks: Node.js | React.js | React Native | Express.js | jQuery | MongoDB | sklearn | numpy | pandas | tensorflow | HTML | CSS

COURSEWORK INFORMATION

Depth Courses: Programming and Data Structures | Geometric Modelling for Design and Manufacturing | Basic Electronics | Operations Research- 1 | Maths 1&2 | Probability and Statistics |
Additional Credit: Object Oriented System Design | Artificial Intelligence Foundations and Applications |
Online MOOCs : Python for Everybody Specialisation(University of Michigan, Coursera) | JavaScript Algorithms and Data Structures (freeCodeCamp.org) | API and Microservices (freeCodeCamp.org)

INTERNSHIPS AND PROJECTS

Full Stack Web Developer, Echopspace.in   (May 2021 - present)
•Worked as a full stack developer at the startup working closely with the founder to maintain and build the nodejs server for the website.
•Built APIs using node and mongo to support notifications, profile update and showing posts. Built the corresponding frontend components using react, ejs, jquery and bootstrap.
•Devised a click data collection method using node and mongo to analyse the user paths and optimising it using the data collected.

PROJECTS

CowinSlot: Mobile and Desktop App for finding prefered available covid vaccination slot using the cowin API.
•Devised an application to fetch data from the cowin api and notify users when their preferred slots are available.
•Built the mobile application in React Native and the desktop program in python and tkinter.
•Devised a prediction method to find the estimated time of availability in the district to reduce data and power consumption for users by increasing fetch frequency only near predicted time.

SudokuSolver: Solving sudoku using constraint propagation and search algorithms, taking input from the user in image files and processing them using a neural network model
• Built a node server to serve a website that took user input as an image of a sudoku, ran a python script that detected the sudoku 2D matrix using a neural network model and opencv.
• Built a program to solve sudoku puzzles using constraint propagation and state space search in C++ with a functionality to solve from any valid state even with multiple solutions and executed it on the node server.

AWARDS AND ACHIEVEMENTS

•Offered the prestigious KVPY fellowship by Department of Scence and Technology, Government of India and IISc, Bengaluru on clearing the KVPY exam and the interview.

POSITIONS OF RESPONSIBILITY

Associate, Students' Alumni Cell   (Nov 2019 - Aug 2020)
Worked under the Dean of Alumni Affairs &Branding to organize events like the Annual Alumni Meet (Reunion), Regional Student-Alumni Meet, Guest Lectures and carry on programmes like the Student Alumni Mentorship

EXTRA CURRICULAR ACTIVITIES

•Worked for the upliftment of nearby villages of Kharagpur as a member of the National Service Scheme.
•Participated in Open IIT Case Study competition in 2019 working on a problem statement on the vision fund.