Satvik Yadav

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Education

International Institute of Information Technology, Naya Raipur **8.89/10**
B.Tech in Computer Science and Engineering *Nov 2022 - June 2026*

- **Relevant Coursework:** Data Structures and Algorithms, Prob & Stats, Operating System, DBMS, OOPS, OOAD, Software Engineering, Computer Organization and Architecture, AIML

Delhi Public School Indirapuram **97%/100**
CBSE - Class-XII *May 2021 – June 2022*

Delhi Public School Indirapuram **95%/100**
CBSE - Class-X *April 2019 – March 2022*

Technical Skills

Languages: Java, C++, C, Python, JavaScript, SQL, HTML, CSS
Technologies: MongoDB, React.js, Express.js, Node.js, TensorFlow, PyTorch, jQuery, Bootstrap, Flask, Git
Concepts: Operating System, Object-Oriented Programming, Object-Oriented Analysis and Design, Database Management System (DBMS), Machine Learning, Neural Networks, API, Version Control

Projects

Algorithm Simulator | *Python*, *Flask*, *HTML*, *CSS*, *JavaScript*

- Developed an algorithm visualization tool using HTML, CSS, JavaScript, Python, and Flask.
- Implemented interactive sections for well-known algorithms, namely Dijkstra's, A*, QuickSort, MergeSort, BubbleSort, SelectionSort, HeapSort, and InsertionSort algorithms.
- Enabled users to explore and visualize these algorithms, fostering a hands-on understanding of algorithmic concepts.

Myocardial Infarction Detection Using MRI Images and ECG signals | *Python*, *TensorFlow*, *Nibabel*

- Designed and trained CNN, ResNet, EfficientNet, and VGG architectures for multi-channel image classification of MRI images from the EMIDEC dataset.
- Utilized data augmentation and learning rate scheduling to improve model accuracy and generalization.
- Achieved high accuracy and reliability in the automated detection of myocardial infarction, significantly improving the potential for early diagnosis and timely treatment.

Weather Based Irrigation System | *ESP32* , *OpenWeatherAPI*, *ThingSpeak*

- Developed a Smart Irrigation System with ESP32, integrating real-time weather data from the OpenWeatherAPI.
- Optimized water usage by dynamically adjusting irrigation schedules based on temperature, humidity, and precipitation forecasts.
- Implemented cloud data storage using ThingSpeak, providing scalability and efficiency for irrigation management.

Clubs and Communities

Vice Secretary - IGNITERS
Official Dance club of IIIT-NR *April 2023 - April 2024*

Comic Expo Event Lead - Technovate '24
Event Lead at the Annual techno-cultural fest of IIIT-NR *Sept 2023 - Feb 2024*