# **Naitik Singhal**

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#### **EDUCATION**

## **BACHELOR OF TECHNOLOGY IN INTERNET OF THINGS (IoT)**

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE, GWALIOR (M.P.) XII (CBSE), DELHI PUBLIC SCHOOL, GWALIOR (M.P.) X (CBSE), DELHI PUBLIC SCHOOL, GWALIOR (M.P.)

2022-2026 | CGPA: 8.89 2022 | 85.8% 2020 | 89.2%

## **PROJECTS**

#### Portfolio, HTML | CSS | JAVASCRIPT

Designed and developed a **Responsive design** for seamless viewing across devices, showcasing my skills and projects. Explore detailed project descriptions with links to **GitHub repositories** and live demos. The site features dedicated sections for my skills, contact information, and even lets you download my CV.

#### COCOMO Calculator, HTML | CSS | JAVASCRIPT

This project **Web-based COCOMO calculator** using HTML, CSS, and JavaScript. This tool allows users to estimate the effort and cost required for software development projects based on their **size and complexity**.

#### Sorting Visualiser, PYTHON | MATPLOTLIB

This Python program allows for easy understanding and **visualization** of sorting algorithms. It implements **Bubble Sort, Selection Sort, and Insertion Sort**, generating a **random data set** and then visually depicting each step of the sorting process using **Matplotlib**. The final output showcases the sorted array.

#### 4X4X4 LED Cube, ARDUINO IDE

This project is a compact, 4x4x4 LED cube functioning as a **prototype for larger 3D displays**. Built with **64 individually controlled LEDs**, it allows for the creation of captivating light patterns. **Wireless control via Bluetooth** enables pattern manipulation without physical connections.

### Arduino Learners Kit, ARDUINO IDE

**Collaboratively developed** an Arduino kit designed to **simplify complex sensor connection** concepts for students. This innovative prototype fosters a passion for tech education by merging creativity with practical learning experiences.

#### **ACHIEVEMENTS**

- Max Rating 1496 on Codechef.
- Ranked 348 in Starters 126 2024 (Div 4), 301 in Starters 133 2024 (Div 3).
- 200+ DSA Problems across platforms.
- Technical member, Geeks for Geeks Student Chapter, MITS
- 3<sup>rd</sup> Rank in **SCIENCE CLUB** Competition.
- Certification of 1 week Training Program in Power Engineering & Renewable Energy UIT RGPV Shivpuri (2024).

# TECHNICAL SKILLS

- LANGUAGES: Java, C++, JavaScript, Python, Embedded C
- IT CONSTRUCTS: DS and Algorithms, OOPS, Operating System, Software Design, Computer Networks
- **DEVELOPMENT TOOLS**: Microsoft Visual Studio, GitHub