

# Samarth Saxena

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## EDUCATION

### VIT Bhopal University

*B.Tech. in Computer Science and Engineering*

2022 – 2026

*CGPA: 9.08 / 10*

### Yashwant Public School

*Central Board of Secondary Education*

2021

*Percentage: 92.8%*

### Rajeshwar Higher Secondary School

*Central Board of Secondary Education*

2019

*Percentage: 93.8%*

## EXPERIENCE

### Paradise EDU Services India

*Subject Matter Expert (Computer Science & Mathematics) (Remote)*

Apr 2023 – Jun 2023

- Solved over 1056 academic problems on the Chegg platform related to Computer Science and Mathematics.
- Utilized LaTeX extensively for professional-quality documentation and mathematical content.
- Received a Letter of Recommendation for exceptional contribution.

### Marpu Foundation India

*Content Writer (Remote)*

Mar 2023 – Apr 2023

- Authored 10-12 environmental awareness blogs published on platforms like Quora.
- Used Canva, Prezi, and MS Word to design engaging content and improve digital outreach.
- Received a Letter of Recommendation for contribution to environmental advocacy.

## PROJECTS

### Evaluation of Oxygen Saturation in the Blood through a Non-Invasive Method (Arduino, MAX30100, IoT)

- Developed a low-cost, non-invasive system to measure SpO2 and heart rate using MAX30100 sensor with Arduino UNO.
- Implemented signal processing techniques to interpret photoplethysmographic (PPG) signals for accurate data acquisition.
- Addressed challenges related to voltage levels and I2C communication by optimizing circuit design and resistor configuration.
- Proposed practical applications in telemedicine and home healthcare, contributing to accessible health monitoring solutions.

### Textual Fingerprinting: Distinguishing Human vs AI Writing (Python, BERT, ML)

- Engineered a binary text classifier using the BERT transformer model to identify AI-generated content versus human writing.
- Processed large datasets from Kaggle and human sources using tokenization, embedding, and vectorization for model input.
- Achieved high validation accuracy by fine-tuning BERT on balanced text samples; evaluated with F1-score and confusion matrix.
- Developed the solution to support content authenticity initiatives and aid in misinformation detection efforts.

## TECHNICAL SKILLS

**Languages:** C++, Java

**Web Development:** HTML, CSS, Tailwind CSS, ReactJS, MongoDB

**Tools/Platforms:** Git, GitHub, VS Code

## ACHIEVEMENTS

- Solved DSA problems on LeetCode with peak rating **1984**.
- Core member of **GFG CLUB VIT BHOPAL** managed social media outreach.
- University cricket team player; led multiple intra-college sports events.

## CERTIFICATIONS

### Certifications

- Generative AI – IBM Center for Excellence
- Blockchain Essentials – IBM Center for Excellence