

Samarth Saxena

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EDUCATION

VIT Bhopal University, Bhopal
B.Tech. in Computer Science and Engineering

2022 – 2026
CGPA: 9.08 / 10

Yashwant Public School, Mhow
CBSE Board – Class XII

2021
Percentage: 92.8%

Rajeshwar Higher Secondary School, Mhow
CBSE Board – Class X

2019
Percentage: 93.8%

TECHNICAL SKILLS

C, C++, ReactJS, Node.js, MongoDB, REST APIs, HTML, CSS, IoT, Machine Learning, Arduino, Git, VScode, GitHub

PROJECTS

AgriSage | React.js, Node.js, MongoDB, Flask, Plotly, YOLOv5, LightGBM Aug 2024 – May 2025

- Built a full-stack web platform using React, Node.js, and MongoDB for crop insights and disease tracking.
- Designed dashboards with Plotly to visualize soil quality, weather trends, and recommendation outputs.
- Trained LightGBM on 2200+ soil and climate records to suggest locally suited crops.
- Deployed YOLOv5 via Flask microservice for plant disease detection using leaf images.
- Stored user-specific records in MongoDB; planned WhatsApp alerts and multilingual UI support.

AnemiaView | React.js, Node.js, MongoDB, Flask, Arduino, sensors Jan 2024 – June 2024

- Built a full-stack system to estimate hemoglobin using SpO data, enabling early detection of potential anemia.
- Designed a responsive frontend in React to display real-time vitals, patient trends, and alerts.
- Created REST APIs with Node.js and integrated Flask-based signal processing for PPG data analysis.
- Stored time-series records in MongoDB and interfaced MAX30100 sensor via Arduino with I2C handling.

Textual Fingerprinting | Python, BERT, Hugging Face, Scikit-learn, NLTK Jun 2023 – Sep 2023

- Developed a textual fingerprinting system using BERT-based language models to classify writing styles.
- Utilized Hugging Face Transformers for fine-tuned BERT embeddings on author-labeled text data.
- Extracted stylometric features using NLTK and Scikit-learn for additional shallow classification layers.
- Stored text logs and predictions in MongoDB for monitoring and dataset refinement.
- Applied tokenization and embeddings via HuggingFace to generate model predictions.
- Built for academic integrity use-cases, AI detection, and early-stage misinformation filtering.

CO-CURRICULAR ACTIVITIES

PR & Outreach Lead – GFG Club 2023 – Present

- Coordinated with guest speakers and sponsors for key technical events.
- Handled public relations — wrote official communications, press releases, and proposals.

Social Media Team Member – GFG Club 2022 – 2023

- Created and published promotional graphics for workshops and contests, reaching 500+ students.
- Ensured consistent branding through regular highlights, posts, and design updates.

Event Coordinator – Seminar by Prof. Chung 2022

- Managed logistics for a neural networks seminar: registration, AV setup, and flow control.
- Led a team of volunteers to ensure seamless execution of the academic event.

ACHIEVEMENTS

- Selected as one of the top 4 finalists in a Capture The Flag cybersecurity competition conducted by the Linux Club.
- Secured 3rd place in a university-level hackathon during the Annual Fest.
- Achieved runner-up position in the intra-college chess tournament and qualified as a semi-finalist in an inter-college chess tournament.
- Contributed as a key player in the university cricket team that won the championship during the Annual Fest.