

Yash Sehgal

Third Year Undergraduate

Computer Science Engineering

Indian Institute of Technology Mandi

+91-7495052799

yashsehgal2974@gmail.com

Yash Sehgal 

yashsehgal29 

EDUCATION

Indian Institute of Technology, Mandi

B.Tech in Computer Science and Engineering, CGPA: 7.0

Himachal Pradesh, India

2022-2026

RELEVANT COURSES

Data Structures and Algorithms	Design of Algorithms	Machine Learning
Information Database Systems	Automata Theory	Probability and Statistics
Statistical Foundations of Data Science	Mathematical Foundations of Computer Science	

SKILLS

- **Programming:** C++, JavaScript, Python, HTML, CSS
- **Frameworks/Libraries/Tools:** ReactJS, NodeJS, NumPy, Pandas, TensorFlow, Keras, Redux, Tailwind-CSS, Matplotlib, Git, GitHub
- **Database and Platform:** MongoDB, Firebase

PROJECTS

- **Efficient Convolution Models for Abnormal Heartbeat Signal Detection | Link for project** January 2024
Python, Machine Learning, TensorFlow, Keras, Data Science
 - Developed a Python-based heartbeat analyzer using TensorFlow and Keras to classify ECG data, Enhanced model precision by 15 per cent through advanced data augmentation techniques; significantly improved predictive accuracy and reduced error rates by 20 per cent
- **LLM Chat Bot | Link for project.** January 2024
Generative AI, Langchain, Python
 - Created a cutting-edge Chatbot using advanced pre-trained models, including Mistral 7b, Mistral 8x7b, Llama2 7b, and Llama2 70b. Leveraged a diverse array of open-source LLMs to create highly efficient conversational AI solutions
- **Sorting Visualizer | Link for project.** June 2024
Data Structures and Algorithms, ReactJS, Tailwind CSS <https://sorting-visualizer-blond.vercel.app/>
 - Created a "The Sorting Visualizer" to demonstrate sorting algorithms through animations, implemented 5 sorting algorithms such as Bubble Sort, Merge Sort, Selection Sort, Quick Sort, and Insertion Sort for educational purposes.
- **Namaste-Mart (an E-commerce Web App) | Link for project.** June 2024
ReactJS, NodeJS, Firebase, Redux-Toolkit, Tailwind CSS, Bootstrap <https://namaste-mart-opal.vercel.app/>
 - Developed a responsive and modern e-commerce web application using ReactJS and Tailwind CSS, with state management via Redux Toolkit and Context API, and established protective routes for separate types of users.
 - Utilized Google Firebase for real-time database operations and secure user authentication. It can right now handle 50+ users and 1000+ products
- **Parallel Ram Pump for River Water Lifting** April, 2024 - May, 2024
interdisciplinary project
 - Constructed a cost-effective parallel ram pump prototype to lift river water to a height of 10 meters.
 - Designed for sustainability and low maintenance, with potential applications in remote irrigation and disaster relief.
 - The prototype has an estimated capacity of 100 litres per hour.

ACHIEVEMENTS

- Our Group-68 was selected as one of 22 projects for further development in the Design Practicum. May 2024
- Contributed to a research paper on 'Efficient Multi-layer Convolutional Models for Abnormal Heartbeat Signal Detection' accepted in "Texila International Journal of Public Health". June 2024
- Among the Top 15 teams in KrackHack'24 Hackathon organised by GDSC IIT Mandi April 2024

POSITIONS OF RESPONSIBILITY

- **Team Head** Miraz'2024 Videography Team, lead a team of 25+ volunteers April 2024
- **Core Team member and Content Head :** Yantrik Club IIT Mandi March, 2023
- **Core Team member :** SnTC Web Development Team September, 23
- **Tutor :** Mentored a group of 5 students in the Course IC-102p Foundation of Design Practicum. March 2024

CERTIFICATIONS

- **Udemy** : Mastering Data Structures and Algorithms in C++ *March 2024*
- **Energy Swaraj Foundation** : Organizer Certificate for the Climate Clock Assembly and Design Workshop *March 2024*
- **Linked In**: Certification Of Completion of Course "Introduction to Career Skills in Software Development" *June 2024*
- **Ministry of Electronics and IT**:Certificate of participation in "Bootcamp on Drone Technology" *July 2023*

EXTRA CURRICULAR AND VOLUNTEER ACTIVITIES

- **Core Team Member ::** Photography and Movie making Club *June 2023*
 - **Core Team Member ::** Hiking and Trekking Club *June 2023*
-