


Yash Sehgal

Third Year Undergraduate

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EDUCATION

Indian Institute of Technology, Mandi

B.Tech in Computer Science and Engineering, CGPA: 6.93

Himachal Pradesh, India

Till 4th Semester

Relevant courses: Data Structures and Algorithms, Design of Algorithms, Machine learning, Automata Theory, 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

ACHIEVEMENTS

- Our Group-68 was selected as one of 22 projects for further development in the Design Practicum. May 2024
- Co-authored a research paper published 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