

Ashutosh Sharma

Second Year Undergraduate\ Computer Science and Engineering\ Indian Institute of Technology,
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Education

- **Bachelor of Technology in Computer Science and Engineering**\ Indian Institute of Technology, Mandi\ Expected Graduation: 2024\ CGPA: 8.52/10.00
 - **Class XII**\ Montessorie Cambridge School, Raja Ka Bagh\ CBSE Board, Year of Completion: 2019\ Percentage: 83.4%
 - **Class X**\ Montessorie Cambridge School, Raja Ka Bagh\ CBSE Board, Year of Completion: 2017\ CGPA: 10/10
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Skills

- **Programming Languages:** C + +, Python, PHP, Kotlin, Java
 - **Libraries:** Tensorflow, OpenCV, PyTorch, Keras, Scikit-learn, NLTK, Numpy, Pandas, Matplotlib
 - **Web Development:** HTML, CSS, JavaScript, Node.js, MySQL, ReactJS, MongoDB
 - **Blockchain:** Web3, Solidity, Smart Contracts, React
 - **Communication:** English (Fluent), Hindi (Fluent), German (Intermediate)
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Relevant Courses

- Data Structures and Algorithms
 - Information & Database Systems
 - Mathematical Foundations of Computer Science
 - Data Science-1, 2, 3 (Probability & Machine Learning)
 - Linear Algebra
 - Artificial Intelligence (Stanford Online, CS:221)
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Projects

Tower Defense AI (Python: Pygame, Genetic ML Algorithm)

- Developed a game with an AI algorithm, mentored by an industry professional.
- Explored and implemented various algorithms, ultimately creating a Genetic Algorithm from scratch that achieved performance on par with human players.

Age and Gender Detection on CCTV Videos

- Python, PyTorch, OpenCV, MTCNN, ImageAI, Deepface, Keras, Tensorflow

- **Domains:** SRGAN, Deep Learning, Image Processing
- Utilized ImageAI for object detection, ESRGAN for resolution enhancement, MTCNN for face detection, and Deepface library for age prediction.

Automated Proctoring (Django, Tensorflow, OpenCV)

- Implemented a secure online exam proctoring system.
- Implemented custom Face ID for login authentication.
- Employed face verification at regular intervals to ensure user integrity.
- Implemented functionality to warn users against switching tabs during the exam.

Institute Students Website Revamp Project

- Led the Frontend team in redesigning the Institute Students website.
 - Utilized HTML, CSS, and JavaScript to create an intuitive and user-friendly interface.
 - The revamped website is currently being used by all students of IIT Mandi.
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Achievements

- Ranked 6th out of 100 participants in CodeRush, an intra-college competitive programming contest organized by AlgoUniversity.
 - Runner-up in the Build a Bot team competition, where a bot using LIDAR sensors was deployed to detect the number of people in a room and perform room automation.
 - Won NFT by completing a dApp on Buildspace using Solidity and Smart Contracts.
 - Runner-up in the Chat-Bot team competition, where a chat bot was developed and deployed on Telegram as part of a college-level team competition.
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Positions of Responsibility

- **KamandPrompt** - Core Team Member at Programming Club of IIT Mandi
 - **ML101** - Event Organizer for on-campus Machine Learning event named ML101
 - **FrostHack'22** - Volunteer for the sponsorship team of FrostHack'22, a hackathon event
 - **IIT Mandi Wiki** - Server Administrator of IIT Mandi Wiki
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Extra Curricular Activities

- Volunteer at UDC, Dance Club of IIT Mandi
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