Ashutosh Sharma

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Education

- **Bachelor of Technology in Computer Science and Engineering** \
- *Indian Institute of Technology, Mandi*
- *CGPA: 8.49/10.00*

- *Expected Graduation Year: 2024*

- **Class - XII** \

- *Montessorie Cambridge School, Raja Ka Bagh*
- *CBSE Board*

- *Percentage: 83.4%*

- **Class - X** \

- *Montessorie Cambridge School, Raja Ka Bagh*
- *CBSE Board*
- *CGPA: 10/10*

Skills

- **Programming Languages:** C++, Python, PHP, Kotlin
- **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

Relevant Courses

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

Projects

Age and Gender Detection on CCTV Videos

- *Developed an image processing project using Python, PyTorch, and OpenCV.*
- *Used Machine Learning models like MTCNN, ImageAI, and Deepface to detect and predict age and gender.*
- *Explored SR GAN and DL techniques for image enhancement.*
- *Achieved accurate age prediction by implementing the Deepface library.*
- *[GitHub Link](#)*

Tower Defense AI

- *Built a game and implemented AI algorithms using Python and Pygame.*
- *Experimented with multiple algorithms and eventually implemented a Genetic Algorithm from scratch.*
- *The AI achieved human-level performance in playing the game.*
- *[GitHub Link](#)*

Automated Proctoring

- *Developed a web application using Django, TensorFlow, and OpenCV.*
- *Implemented custom Face ID authentication for user login.*
- *Used face verification for ensuring exam integrity by periodically checking the user's face.*
- *Implemented a functionality to warn users if they switch tabs during an exam.*
- *[GitHub Link](#)*

Institute Students Website Revamp Project

- *Led the frontend team in redesigning and developing the website of IIT Mandi students.*
- *Utilized HTML, CSS, and JavaScript to create an appealing and user-friendly interface.*
- *The revamped website is currently being used by all students of IIT Mandi.*
- *[GitHub Link](#)*

Achievements

- *Secured 6th position out of 100 participants in CodeRush, an intra-college competitive programming contest organized by AlgoUniversity.*
- *Finished as a runner-up in the Build a Bot team competition, where a bot was deployed using LIDAR sensors to detect the number of people in a room and perform room automation.*
- *Earned a Non-Fungible Token (NFT) by successfully completing a dApp on Buildspace. Developed the app using Solidity and Smart Contracts.*
- *Finsihed as a runner-up in a team competition for creating a Chat-Bot. Trained and deployed the chatbot on Telegram.*

Positions of Responsibility

- *Core Team member at the Programming Club of IIT Mandi - KamandPrompt.*
- *Event organiser for on-campus Machine Learning event - ML101.*
- *Volunteered for the sponsorship team of FrostHack'22.*
- *Server Administrator of IIT Mandi Wiki.*

Extra-Curricular Activities

- *Volunteer at UDC, the Dance Club of IIT Mandi.*
- *Passionate about dance.*

Note: All projects are available on GitHub. Contact me for more information.