



Abhinash Roy

2nd Year | Computer Science and Engineering | IIT Jodhpur
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Education

Indian Institute of Technology Jodhpur, India

Aug 2023 – Aug 2027

B.Tech in Computer Science and Engineering

Current CGPA: 7.78/10.0

Shree Jain Vidyalaya, Kolkata

June 2020 – April 2022

Higher Secondary Education

Percentage: 88.4%

Projects

Hostel Allocation and Deallocation System — *Dr. Arpit Khandelwal*

Aug 2024 - Dec 2024

Technologies: HTML, CSS, JavaScript, MERN

- Built a web application to streamline hostel allocation and deallocation for 5,000+ students.
- Designed a robust system for managing student data efficiently.
- **GitHub Repository:** Frontend — Backend

Auto-Complete Search Bar

Oct 2024 - Nov 2024

Technologies: C++, HTML, CSS, JavaScript

- Developed an interactive search bar with autocomplete functionality, providing dynamic search suggestions as users type.
- Implemented prefix, suffix, and infix search capabilities, prioritizing frequently searched terms for enhanced user experience.
- Utilized the Winsock library in C++ to handle backend networking operations, enabling efficient client-server communication for real-time search suggestions.
- **GitHub Repository:** Auto-Complete Search Bar

Crash Detection Smart Helmet

Jan 2024 – Apr 2024

Technologies: Arduino, C/C++, Embedded Systems

- Engineered an intelligent helmet equipped with real-time crash detection capabilities to enhance rider safety.
- Integrated an Arduino microcontroller to process data from multiple sensors, including accelerometers and gyroscopes, for precise accident detection.
- Employed a GSM module to automatically transmit emergency alerts, including geographic coordinates, to predefined contacts, ensuring prompt assistance.

Technical Skills

Programming Languages: Python, C++, C, JavaScript, HTML, CSS

Frameworks: ReactJS, NodeJS, ExpressJS

Tools & Platforms: GitHub, VS Code, PyCharm, Cursor, Git

Server & Database: MySQL, MongoDB

Other Technologies:

Web App Development: MERN Stack, Tailwind

Machine Learning: NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch

IoT: Arduino, Raspberry Pi

Relevant Coursework

Computer Science: Data Structures and Algorithms, Pattern Recognition and Machine Learning

Mathematics: Probability, Statistics and Stochastic Processes, Mathematics for Computing

Extracurricular Activities

- Core member of the Robotics Society, contributing to various projects and events.
- Volunteered in college fests like *Varchas*, *Prometeo*, and *Ignus*.

Certifications

- (Udemy)Mastering Data Structures & Algorithms using C and C++. **Link**