

AADITYA YADAV

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EDUCATION

Course	Institute	Year of Passing	Result
B.Tech (CE)	Indian Institute of Technology (IIT), Jammu	Expected 2026	7.34 CGPA (Till 4th Semester)
12th Standard	GRM School	2021	94%
10th Standard	GRM School	2019	93.4%

PROJECTS

See Through Armour (STA)

Indian Army, Jammu (May 2024)

Developed an AI based smart AR glasses system for Indian Army's Tanks

- Utilized Tools: Google Colab, Linux, Python, Open CV, PyTorch, RTMP Streaming
- Converted the entire project into Linux bundles for Modularity, Adaptability and Compatibility across Linux system.
- Decreased overall cost of project over 50% by streamlining AR glasses integration with Nvidia Jetson Xavier NX GPU.
- Refined Python scripts to reduce lag to 10-20 ms in the RTMP stream from an external 360 camera.

Flipkart Grid 5.0

IIT Madras, Chennai (Jan 2024)

Built an AI powered robotic arm equipped with Cameras and Sensors to tackle Packaging hurdles of the Industry.

- Utilized Tools: Raspberry PI, Stepper Motors, Depth Sensors & Cameras, YoloV8, Computer Vision, Python
- Maximized Box and QR Code detection along with pickup and place accuracy of the Arm while managing the arm to move at a fast pace.
- Reached National Finals and placed in the Top 5 teams all from 100+ teams all across India with good Teamwork and exceptional Problem Solving skills.

Autonomous EV

IIT Jammu, Jammu (Jan 2024)

Developed a robust and reliable Self Driving Electric Vehicle based on Deep Learning.

- Utilized Tools: Image Processing, Deep Learning, Linux, Arduino, Sensors, Stepper Motors
- Trained a Deep Learning model to detect road lanes, send data to Arduino used control the Servo Motors.
- Developed a Manual Remote Control using FS-iA6 transmitter and receiver as a fail-safe communication to ensure passenger safety.

Waste Segregation Robotic Arm

IIT Jammu, Jammu (Dec 2023)

Built an Time efficient Robotic Arm which could be used to segregate different type of waste materials using a gripper.

- Utilized Tools: Arduino, Robotic Operating System (ROS), Linux, Stepper Motors, Motion Planning, CAD, Inverse Kinematics.
- Engineered a robotic arm powered by ROS along with Motion Planning and Gazebo Simulation which could be used to segregate different types of waste materials.

AeroTHON

SAE, Jammu (Aug 2023)

Built a Drone for the SAE AeroTHON competition

- Utilized Tools: CAD, Performance Optimization, Material Selection, Brushless Motors, Analysis.
- Built the CAD model of the Drone and Performed Various Analysis on it to Optimize the design.
- Carefully selected the Parts and Build Material of the Drone to Maximize Flight Time and Stability.

Line Following Bot

IIT Jammu, Jammu (Mar 2023)

Engineered a Fast Line following bot based on Ultrasonic Sensors

- Utilized Tools: CAD, Arduino, Stepper motors, PID controller, Maze Following Algorithms
- Optimized the PID Controller of the bot for the fastest speed while reliably following the line.

- Took the Bot to IIT Kanpur Techfest and World Robotics Championship

Robotic Dog

IIT Jammu, Jammu (Feb 2023)

Built a 3D printed Robotic Dog which could perform a few tasks and walk around.

- Utilized Tools: Arduino, Servo motors, CAD, Inverse Kinematics, 3D Printing
- Worked out the Inverse kinematics needed for proper motion of the Bot.
- Refined and Redesigned the 3D CAD to fit the required components inside.

SKILLS

Programming Languages	Python, C, C++, Rust, HTML
Softwares / OS	Git, MySQL, Linux, Robotics Operating System (ROS), Arduino
Relevant Coursework	Data Structure and Algorithm, Python, Computer Programming
Soft Skills	Designing, Photography, Team Management, Leadership

ADDITIONAL INFORMATION

Position of Responsibility

- **Club Coordinator** at Robotics Club, IIT Jammu
- **Mentor** at Coding Club, IIT Jammu
- **Design Head** at Fintech, IIT Jammu
- **Event Management and Outreach Head** at Tinkering Lab (I2EDC), IIT Jammu

Workshops and Training Attended

- Boeing Aeromodelling Workshop, IIT Kanpur, 2023
- Canva Workshop for Designing at IIT Jammu.
- Solid Works Workshop held by SAE Club, IIT Jammu.
- Photography Workshop held by Chitraka, IIT Jammu
- Cyber Security Workshop at IIT Jammu.
- Drone Workshop, IIT Jammu, 2024

Extracurricular Activities

- Won 1st Place in Intra College Football Competition Pahal '24
- Got 1st Place in Intra College E-sports Tournament Pravaah '24
- Got 2nd Place in Intra College E-sports Tournament Pravaah '23
- Volunteered as Security Head at Udyamitsav '24
- Volunteered as Harmonic Tech Head at Anhad '24

Hobbies: Football, Badminton, E-sports,

Languages: English, Hindi