

JAI SRIKAR MEDARAMETLA

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EDUCATION

IIIT Hyderabad

Jul 2024 - Present

B.Tech in Electronics and Communications

GPA: 6.2

Coursework: Data Structures and Algorithms; Computer Programming; Networks, Signals and Systems; Analog Electronic Circuits; Information and Communication; Digital Systems and Microprocessors

PROJECTS

Quadrature Down Converter, IIIT Hyderabad

April 2025-May 2024

Designed and simulated a quadrature downconverter with custom mixer, LO, and LPF blocks to extract I/Q baseband signals on LTSpice.

Highway Car Speed Detector, IIIT Hyderabad

Nov 2024-Dec 2024

Conceptualized and deployed an Arduino-based vehicle speed monitoring solution using a single ultrasonic sensor. Attained approximately 90% detection accuracy and scalability.

Automatic Waste Sorter, Delhi Public School Nacharam

Jan 2020 - May 2020

Developed an automated waste sorting system using Arduino and a combination of sensors to differentiate waste. Recognized at the national-level *ATAL Innovation Marathon* (by NITI Aayog)

Visibility-Triggered Car Wiper, Delhi Public School, Nacharam

Sep 2019 - Nov 2019

Developed an intelligent vehicle system to automate windshield wiper activation in low-visibility conditions. Featured in the school's annual TechFest as a promising innovation in student-led design

EXPERIENCE

Research Assistant, CogSci Lab, IIIT Hyderabad

June 2025- present

Part of a clinical research project under Prof. Kavita Vemuri at PreCog Lab, IIIT-H studying spinal movement to detect Lower Back pain using motion capture and video-based analysis using tools such as OpenSim and Motive.

Marketing Intern, Hustlr

June 2025- present

Supporting marketing and product positioning at Hustlr, an early-stage startup simplifying freelance project discovery for undergrad students.

SKILLS

Programming Languages and Simulation Softwares

C/C++, Python, MATLAB, Simulink, Arduino, LTspice, Motive, OpenSim.

ACHIEVEMENTS AND AWARDS

JEE Advanced: AIR 7068 JEE Mains: AIR 3728

ACTIVITIES

Tech and Events Team, Electronics and Robotics Club, IIIT Hyderabad

Dec 2024- Present

Conceptualise and conduct events and participate in competitions to represent the club and the institution

Content Writing, Astronautics club, IIIT Hyderabad

Dec 2024-present

Contribute to the club's publications through meticulously researched articles, blogs, and newsletters