

# Dataarnoor Singh

✉ dataarnoor.oberoi@students.iiit.ac.in

☎ +91 7986025683

🌐 LinkedIn

🐙 GitHub

## Education

International Institute of Information Technology, Hyderabad (IIIT-H)  
B.Tech in Electronics and Communication Engineering

Expected May 2027  
CGPA: 7.73

## Relevant Courses

Data Structures and Algorithms, Processor Architecture, Computer Programming, Digital Systems, Probability and Statistics, Linear Algebra

## Experience

- **Hustlr** June 2025 – Present  
Software Developer Intern Hybrid
  - Contributed to an AI-based recommendation system to match students with freelance projects.
  - Developed and integrated FastAPI backend endpoints for profile vetting and intelligent job recommendations.
  - Collaborated on the React Native mobile app, focusing on onboarding, project tracking, and messaging flows.**Tech Stack:** React Native, FastAPI, Expo, Python, Figma
- **Robotics and Research Centre** May 2025 – Present  
Undergraduate Researcher Hyderabad, Telangana
  - Researching generative AI-based RL with continuous control using OpenAI Gym for robotic simulations.
  - Implementing DDPG and PPO algorithms to train agents in custom environments for task efficiency.
  - Improving policy convergence with reward shaping, tuned hyperparameters, and training setups.**Tech Stack:** Python, PyTorch, OpenAI Gym

## Projects

- **Video Creation Website** | Node.js, Python, HTML, CSS, JS Mar 2025
  - Built a media tool to convert images/audio into videos with a custom frontend for upload and output.
  - Designed an interactive UI using HTML/CSS/JS for file input, trigger, and preview/download actions.
  - Used Node.js and Python (MoviePy) to process assets and generate videos on user request.
- **Buy/Sell/Rent E-Commerce Website** | React, Express.js, MongoDB Jan 2025
  - Built a full-stack React site with listing, filtering, JWT login, and a mobile-friendly UI layout.
  - Designed a responsive, component-based frontend and integrated it with backend REST APIs.
  - Used Express.js and MongoDB to manage listings, user data, and transaction state securely.
- **RISC-V Processor Implementation** | Verilog, Pipeline, Hazard Detection Feb 2025
  - Designed sequential and pipelined processors in Verilog with control logic and hazard management.
  - Implemented data forwarding, pipeline stalls, and branching to handle execution hazards.
  - Verified functionality through custom testbenches and instruction-level simulation outputs.
- **4-bit Carry-Lookahead Adder** | Magic VLSI, Verilog, NGSPICE Nov 2024
  - Created a 4-bit CLA using generate-propagate logic with Magic VLSI layout and Verilog modeling.
  - Verified logic and timing with NGSPICE simulations and waveform delay measurements.
  - Compared post-layout delay with ripple-carry logic using custom simulation benchmarks.

## Technical Skills

**Software Development:** C, C++, Python, JavaScript

**Web Technologies:** HTML, CSS, React.js

**Hardware Design:** Verilog, NGSPICE, Magic VLSI, Xilinx Vivado, FPGA Programming

**Tools:** Git, MATLAB, LTSpice

## Positions of Responsibility

- **Felicity Coordinator, IIIT Hyderabad** April 2025 – Present  
Led the planning and execution of the institute's annual fest, overseeing sponsorship, logistics, and hospitality teams.
- **Events and Logistics, The Gaming Club (TGC)** Jan 2024 – Present
  - Coordinated events and managed logistics for inter-college gaming tournaments.
- **Apex Mentor, IIIT Hyderabad** July 2024 – May 2025
  - Mentored first-year students for academic and social onboarding.