HARSH KUMAR SINGH

🏠 Agra

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CAREER OBJECTIVE
To be a part of an organization where I can fully utilize my skills and make a significant contribution to the success of the institution and at the same time my individual growth.

EXPERIENCE
Oxygen 2 Innovation: *Robotics Engineer,* Jan'19 – June'20
- Made projects for paramilitary forces (CRPF, RAF).
- Robotics – ATV, Drones, Wearable
- AI – Real-time object detection, Suspicious Activity Detection, Ad Tracking on TV Channel
- Backend APIs for IoT Related Projects

Microcontroller Based Systems & Robotics Hub, JIIT Noida: *Head Student Coordinator*, July'17- June'18
- Given lectures on manual, autonomous robotics, wireless communication, IoT for college students.
- Managed internal and external affairs.
- Successfully organized and managed a total of 14 events (2016-18) in annual cultural and technical fests of the college.

TECHNICAL SKILLS
- Areas of Interest: Robotics, AI, IoT, Full Stack Development, Web Development, Project & Team Management
- Programming Languages: JavaFX, Arduino, Node.js, React.js
- Software Skills: Git, HerokuApp, OpenCV, Image Processing, YOLOv3
- Hardware Skills: Embedded Systems, Arduino, ESP8266, ESP32, nRF24L01+, LinkIt One, Raspberry Pi, Pixhawk
- Operating System: Linux, Raspbian, Windows
- Database: MySQL, H2, MongoDB

KEY PROJECTS
- **Switch Simply**: An integrated system that enables any electrical socket to be controlled via internet.
- **Event Registration**: App for managing events and register participants.
- **Booking Management System:** App through which we can create/update/delete and manage bookings of Banquette Hall.
- **WhatsApp Chat Analyser**: App that visualise the no of text messages sent by the user, & time spent on Whatsapp.
- **Self-Balancing Bot**: Bot which can balance itself on two wheels using PID controller.
- **Quadcopter**: Quadcopter with custom made remote and flight controller.
- **Tilt Rotor Tricopter**: Multicopter which can be converted to plane during flight.
- **Pit Filler**: An autonomous bot that detects and fills the pits in its way.
- **Wearable**: An IoT integrated system on LinkIt One board for Health Monitoring and Position Tracking of the person.
- **Rescue Bot**: Bot that senses and send live footage of the scenario of a collapsed building to the outside world.
- **Alarobic Clock**: A alarm clock that turns off only when doing a particular exercise.
- **Smart Mirror**: AI enabled mirror helping user to get updated with the weather, location, health status of loved one etc.
- **Wireless Controlled Bot**: Bot that can be controlled via internet, limited ranged remote, or Bluetooth.
- **Queue Time Estimator**: Based on the queue density, it calculates the approx. time taken to reach the counter.
- **Head Gesture Controlled Wheelchair**: A wheelchair that can be controlled with head gestures.

ACHIEVEMENTS & HONORS
- Published **Research Paper** in **IC3 Conference 2019** on the topic **"A step towards Home Automation using IoT"**
- 2nd **Prize** in Technocreed'15, and 3rd **Prize** in Impressions'16 (LFR), Techfest held at JIIT, Noida.
- 2nd **Prize** in Manual Robotics 2015, held at SRM University
- 2nd **Prize** in Technovoltz, during Techfest'15, held at IIT, Bombay.
- 1st **Prize** in Automation, during Cyber Srishti 2016, Techfest held at JIIT, Noida.
- 2nd **Prize** in Robocon, during ESYA'16, Techfest held at IIIT, Delhi.
- 2nd **Prize** in LFR, during Endeavour'17, Techfest held at KIET, Ghaziabad.
- 2nd **Prize** in Project Exhibition during Cyber Srishti 2019, Techfest held at JIIT, Noida.
- Participated in Project Exhibition during IC3 Conference 2016 & 2017, held at JIIT, Noida.
- College Ambassador in Techfest'16, a Techfest held at IIT, Bombay.
- Participated in Mesh Flare, during Techfest'16, held at IIT, Bombay.

EDUCATIONAL QUALIFICATION

Degree	Discipline	Institute	Location	Year	CGPA/%
B. Tech.	Computer Science	Jaypee Institute of Information Technology	Sec 62, Noida	2019	5.7 (7.7 8th Sem)
Senior Secondary	CBSE	Delhi Public School	Agra	2015	91.6%
High School	CBSE	Delhi Public School	Agra	2013	9.0

PERSONAL PROFILE
DOB: 03-10-1997   **Languages Known:** English, Hindi   **Preferred Location:** 📍Delhi NCR
Gender: Male   **Hobbies:** Listening Music, Sports, Working on Challenging Projects