

# KARAN SATISH

## CONTACT

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## SKILLS

- Programming: C, Python (Basics), C++ (Basics)
  - Tools & IDEs: Arduino, Keil MicroVision, MATLAB, Simulink, Multisim, TinkerCad, Xilinx Vivado(basics), Cadence Virtuso(basics)
  - Others: Microsoft Office 365
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## EDUCATION

10TH - BOARD ICSE  
SWARGARANI SCHOOL AND  
PU COLLEGE PERCENTAGE  
- 81.2%

ELECTRONICS AND  
COMMUNICATION  
ENGINEERING(ECE)

JSS ACADEMY OF  
TECHNICAL EDUCATION  
Grades : CGPA : 6.88(upto 5<sup>th</sup>  
Semester)

## SUMMARY

I am an Electrical and Electronics Engineering student passionate about using technology to solve real-world problems. With a strong foundation in microcontroller programming, circuit design, signal processing, and embedded systems, I've gained hands-on experience through various projects. I worked on an obstacle detection and braking system for trains in my NSS project, enhancing my skills in embedded systems and VLSI. I've also developed leadership skills as Captain of my school team and Cultural Secretary. I'm excited to apply my knowledge and continue growing as an engineer.

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## PROJECTS

1. Obstacle Detection and Automatic Braking of a Train on Railway Track
    - The project focused on designing an obstacle detection and automatic braking system for trains using Arduino, an ultrasonic sensor, and Embedded C. The system detects obstacles on the railway track in real-time and automatically activates the braking mechanism to prevent collisions. It utilizes sensor inputs to trigger motor control logic through embedded programming, ensuring timely response to potential hazards.
  2. Line-Following Robot
    - Built a line-following robot using Arduino, IR sensors, and Embedded C during the 'Battle of Fiesta' Hackathon. The robot efficiently navigated a 20m track in just 22 seconds by programming the microcontroller to follow a black path using IR sensors.
  3. Bi-Directional Visitor Counter
    - Developed a real-time visitor tracking system using TinkerCad, Arduino, and Embedded C, implementing IR sensor-based logic for tracking entries and exits with microcontroller programming.
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## CERTIFICATIONS

1. Completed a training in Embedded Systems from 13-Jun-2023 to 13-Jul-2023, certified by AcmeGrade in collaboration with Mood Indigo, IIT Bombay.
2. Completed a 3-day Full Stack Web Development Workshop conducted by Printson Smart Engineers on 9th, 10th, and 17th December 2023.
3. Secured 1st place in the Battle of Lines competition at ROBO FIESTA 2022, organized by RV Institute of Technology and Management on 21st and 22nd December 2022.