Pooja Yadav

LinkedIn | GitHub

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Career Objective

A highly motivated and enthusiastic Computer Science undergraduate with a strong foundation in programming, web development, and problem-solving. Passionate about building real-world applications and continuously exploring new technologies. Eager to contribute to impactful projects in full-stack development, automation, and intelligent systems while gaining practical experience and enhancing my technical and collaborative abilities.

Technical Skills

Frontend	:	HTML 5, CSS, JavaScript
Backend	:	Python, Java
Framework	:	Bootstrap , Node.js, Springboot
Databases	:	MySQL
Tools & Platforms	:	Visual Studio Code, Labelbox

Education

NIIT University Neemrana — Neemrana - In Progress(2023-2027)
BTech in Computer Science — *Current : 9.62 CGPA*

Higher Secondary Education, RBSE — Jaipur
Scored 90 percent marks

Secondary Education, RBSE — Jaipur
Scored 95 percent marks

Projects

Gesture-Based Bot — *Tech Stack: Spring Boot, SQL, HTML/CSS*

- Implemented **wireless gesture recognition** for **hands-free, real-time robotic control**.
- Integrated a **gesture-sensing module** (e.g., accelerometer, gyroscope) for capturing **directional input**.
- Enabled **obstacle avoidance** using **ultrasonic sensors** with **real-time feedback** and **distance measurement**.
- Developed a **Spring Boot backend API** to send directional commands to the ESP32 controller.
- Designed a **web-based UI** using HTML/CSS for gesture simulation and bot interaction.
- Integrated with a **MySQL database** to log gesture commands, bot responses, and sensor data for monitoring and analytics.

Edge Detection in Medical Imaging — *Tech Stack: OpenCV, Python*

- Implemented **Sobel and Scharr operators** for **gradient-based edge detection** in medical and computer vision images.
- Utilized **partial derivatives** to highlight **intensity changes and texture features** in diagnostic scans.
- Integrated **OpenCV in Python** to enable **cross-platform analysis**.
- Enhanced **feature visibility** to assist in **automated image classification and segmentation workflows**.

Autonomous Pollination Rover — *Role: Researcher*

- Addressed the critical need for alternative pollination methods due to declining bee and pollinator populations, essential for maintaining crop productivity.
- Designed and developed an **IoT-enabled ground-based rover** for **autonomous navigation** and **targeted pollination** in fields.
- Utilized **sensors and real-time environmental data** to enhance crop yield.