RITHIKHA S

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Education

Pursuing Bachelor of Technology in Artificial Intelligence and Robotics   *Aug 2023 – Aug 2027*
Vellore Institute of Technology, Chennai   **Tamil Nadu**

High Secondary   *Jun 2011 – May 2023*
Delhi Public School Bangalore East   **Bangalore**

Relevant Coursework

- Artificial Intelligence
- Database Management
- Web Development
- Robot Programming
- Arduino
- Machine Learning

Projects

Manipulation of Robotic Arm | *ROS1, Python, Arduino IDE*   **Mar 2025 – Apr 2025**
- Controlled a DIY robotic arm by integrating ROS1 nodes with Arduino, enabling joint angle manipulation via ROS topics and serial communication.
- Developed Python scripts for publishing/subscribing arm control commands, tested motion planning, and achieved real-time manipulation through ROS workspace integration.

Quiz based To Do List Website for Students │ *HTML, CSS, Javascript*   **Feb 2025 – May 2025**
- Designed a web application where students can manage tasks with a gamified quiz-based system to improve engagement and productivity.
- Implemented responsive UI with task management, quiz prompts, and progress tracking using vanilla JavaScript.

Braille to Text Transcription | *Arduino IDE*   **Feb 2025 – May 2025**
- **Text-to-Braille**: Designed a glove with six vibrator motors that converts user-input text into Braille patterns, allowing visually impaired users to feel the characters in real time.
- **Braille-to-Text**: Built a button-based Braille input device that translates Braille characters into text, displaying results on an LCD screen for accessibility.

Technical Skills

Languages: Java, Python, C, C++
AI/ML: OpenCV, YOLO, Numpy, Pandas
Tools & IDE: Google Colab, Git, Arduino IDE, VS Code
Web Development: HTML, CSS, JavaScript, ReactJS
Embedded Systems: Arduino, (learning Raspberry Pi and Pixhawk)
Database: MySQL
Other: ROS and Linux Basics

Extracurricular

Technocrats Robotics   **Jun 2025 – Present**
Programming Member   *VIT Chennai*
- Member of programming team of Technocrats Robotics for Robocon and Rover competitions.

Hobbies

- Reading
- Listening Songs
- Dancing