

# RITHIKHA S

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## Education

### Vellore Institute of Technology, Chennai

Pursuing Bachelor of Technology in Artificial Intelligence and Robotics

Tamil Nadu

Aug 2023 – Aug 2027

### Delhi Public School Bangalore East

High Secondary – 78.8%

Bangalore

Jun 2011 – May 2023

## Relevant Coursework

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

## Certificates

### AWS APAC Solutions Architecture virtual experience program on Forage - September 2025

- Designed and simple and scalable hosting architecture based on Elastic Beanstalk for a client experiencing significant growth and slow response times.
- Described my proposed architecture in plain language ensuring my client understood how it works and how costs will be calculated for it.

### Vista Equity Partners AI in Action Job Simulation on Forage - January 2026

- Completed a job simulation involving prompt engineering and GenAI workflow automation for Vista's Portfolio Operations team.
- Applied Vista's four-part prompt framework (Ask, Context, Examples, Desired Output) to synthesize customer NPS survey feedback into executive-ready insights, improving clarity and relevance of outputs by > 50% through iteration.
- Designed and tested repeatable GenAI workflows (news aggregation, data reconciliation, and qualitative insight summarization) using tools such as ChatGPT and Copilot, ensuring accuracy, professional tone, and scalability.
- Evaluated AI-generated outputs for accuracy, tone, and usefulness; implemented guardrails and refinement techniques that reduced error rates and increased stakeholder usability of results.

## 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.

### CURA – AI Powered Personal Journal | HTML, CSS, JavaScript, Flask, OpenAI, Whisper, JSON Models

Aug 2025 – Nov 2025

- Developed a web-based personal wellness application that enables users to record journal entries through text or voice and analyze emotions using sentiment detection models.
- Integrated Jotform chatbot for guided emotional reflection and OpenAI Whisper API for speech-to-text transcription.

## 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

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### Technocrats Robotics

**Jun 2025 – Nov 2025**

*Programming Member*

*VIT Chennai*

- Member of programming team of Technocrats Robotics for Robocon and Rover competitions.