

# Bharathwaj M

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## Skills

- **Frontend Program:**HTML|CSS|JavaScript
- **Programming Languages:**C|C++|Python|Java
- **Databases:**MySQL
- **Robotics:**ROS, Arduino IDE, PLC, RoboDK, Motoman Robo Simulation,PLC,Automation Studio
- **3D Model:** Fusion 360, Solidworks

## Experience

### Thedush Robotics

Coimabatore, TamilNadu

06/2024-08/2024

- **Auto-docking System for TurtleBot3:** Implemented using **ROS 2 Humble**, integrating pattern recognition and **TF frame** transformations for **precise docking**. [Post Link](#)
- **Multi-sensor Auto-docking Simulations:** Combined **2D LiDAR**, **3D LiDAR**, and a **depth camera** on a **single TurtleBot3**, simulating in the factory environment in **Gazebo** and **RViz2**.
- **Simulation and Real-world Applications:** Conducted tasks entirely in **ROS 2 Humble**, strengthening both theoretical knowledge and practical expertise. [Post Link](#)

### CODTECH IT SOLUTIONS

04/2024-04/2024

#### Webdeveloper/Promotionspecialist

Hyderabad ,Telangana,Remotework

- Developed **Rocky Weather**, a weather application website using **HTML**, **CSS**, **JavaScript**, and **APIs** for accurate **weather information**, while also working as a **LinkedIn Promotion Specialist** to enhance brand visibility, boost engagement, and drive targeted traffic through strategic content and networking campaigns. [Link](#)

### CodeClause

02/2024-03/2024

#### FrontendEngineer-Internship

Pune, Maharashtra,Remotework

- Developed a **weather application** leveraging **HTML**, **CSS**, and **JavaScript**, integrated with a third-party **weather API** to display real-time data in an intuitive interface.
- Built a user-friendly **e-cart application** using **React.js**, featuring dynamic product listings, cart management, and state handling for seamless e-commerce experiences. [Link](#)

## Projects

### Smart Stocking and Restocking System – AGVs, Robotic Arms, Sensors, Cameras Ongoing

09/2024 - Ongoing

- Developing an automated system for **stocking and restocking using AGVs** for transport, robotic arms for precise stocking, and sensors for real-time inventory tracking.
- Utilizing cameras for **product identification and system monitoring**, with continuous refinement through testing and feedback.

### Underwater Mini Robot - Arduino, PVC, RF Module, Motor Shield, Propeller

07/2023-05/2024

- Designed and built an underwater mini-robot using **PVC pipes**, **Arduino (UNO & Nano)**, **Motor Shield Adafruit**, and **propellers**, **programmed via Arduino IDE**.
- Integrated a **433 MHz RF module** for remote control, enabling efficient underwater navigation and operations.
- Successfully demonstrated the robot's functionality, showcasing precise movement and reliability in a controlled underwater environment. [Video Clip](#)

### CoVid-19--Helper-

06/2022-05/2023

- Developed a **COVID-19** assistance platform with real-time tracking and vaccination updates using **HTML**, **CSS**, **JavaScript**, and **API integration** for dynamic data visualization. [Code](#)

## Education

Bachelor of Engineering in Robotics and Automation

Expected Graduation - 2026

Sri Ramakrishna Engineering College | Coimbatore, TamilNadu | GPA - 7.86| CGPA - 7.68(upto IV sem)

- **Concentration:** Robotics, ROS and Simulations.
- **Relevant Courseworks:** Localization and navigation using **ROS**, Trajectory planning for a Manipulator and AGV, Implementing  
\*A **Algorithm** for finding the optimal path for a AGV, **Robotic process automation**, **Machine learning for Robotics**, **Object-Oriented Programming(OOPs)**.