

Summary

Skilled engineer with expertise in **web development**, **machine learning**, **robotics**, and **IoT**. Proficient in **Python**, **C++**, **JavaScript**, **ReactJS**, **TensorFlow**, **PyTorch**, and **OpenCV**. Experienced in **gesture recognition**, **web-based control systems**, and applying **Robotics** and **AI** to solve real-world problems.

Skills

- Programming Languages:** Python, C++, JavaScript, HTML
- Frameworks, Libraries, and Tools:** ReactJS, TensorFlow, PyTorch, Node.js, MongoDB, MySQL
- Embedded Systems and Robotics:** Arduino programming, sensor integration, ROS, robotic arm programming, path planning, SLAM, kinematics, dynamics, gesture control
- Machine Learning and AI:** Model training, deployment, optimization, sentiment analysis
- Design Tools:** CAD, PCB design
- Other Skills:** Problem solving, teamwork, communication, Video editing, Cinematography

Experience

- Frontend Developer (ReactJS)**

MERN Stack Training

Full Stack Academy, Kochi

Developed responsive web applications with ReactJS, improving performance by 30% and collaborating on e-commerce sites, enhancing user engagement by 15%.
- IoT Systems Developer**

IoT and Robotics

Technobyte, IIT Madras

Developed IoT solutions for real-time automation, improving efficiency by 25%, and enhanced sensor integration for improved accuracy by 20%.
- AI Intern**

Machine Learning and NLP Solutions

Teachnook

Developed sentiment analysis models with 90% accuracy, automating workflows and reducing manual workload by 50%.

Projects

- Autonomous Vacuum Cleaner Robot**

Jul 2023

Led a team to develop an Arduino-based robot for autonomous cleaning, featuring obstacle avoidance.
- Recipe Website**

Jul 2024

Developed a recipe website using HTML, CSS, and JavaScript for easy recipe exploration.
- Robotic Manipulator with Gesture Control**

Jan 2025 - Apr 2025

Built a 4-DOF robotic arm with gesture recognition using OpenCV and web-based slider control for remote pick-and-place operations.

Education

- B.Tech in Robotics and Artificial Intelligence**

Aug 2022 – Present

Rajiv Gandhi Institute of Technology, Kottayam