

# Harikrishnan Kaniyali

M G Road, Bangalore, Karnataka.

+91 7907702675 | [harikrishnan.kaniyali@gmail.com](mailto:harikrishnan.kaniyali@gmail.com)

<https://www.linkedin.com/in/harikrishnankaniyali>

## PROFILE

---

Experienced Mechatronics Engineer with expertise in automation, embedded systems, and software development. I have 2+ years of hands-on experience in programming (Python, C++, Embedded C), process automation, and IoT. Seeking a role to contribute to innovative projects in the industry.

## TECHNICAL SKILLS

---

- **Programming Languages:** Advanced Embedded C, C++, Python
- **Software tools:** Simulink, Simscape, Lab View, Arduino, MS Office
- **Embedded Software:** Microchip PIC, hands-on prototype building
- **Development Skills:** PC software and app development
- **OS:** Windows, Linux

## EDUCATION & QUALIFICATIONS

---

**MSc Mechatronics and Intelligent Machines**

**2022 to 2023**

**University of Central Lancashire, Preston, UK**

- **Key Modules:** Advanced topics in Industry 4.0, Advanced topics in Machine Artificial Intelligence, Advanced Mechatronics system, applied instrumentation, Design and operation of sustainable systems.
- **Grade:** Distinction.

**BEng in Mechanical Engineering**

**2015 to 2019**

**NSS College of Engineering, Palakkad, INDIA**

- **Key Modules:** Electromechanical Systems and Industrial automation.
  - **Grade:** Distinction.
-

## PROJECTS

---

- **Walking model of quadruped robot** **2023**  
Developed a Pybullet simulation for a quadruped robot as a part of my master's research. Walking model algorithm Implemented and controlled the robot in a Pybullet simulation using Python for robust interaction and control
- **AI-powered autonomous driverless car application** **2022**  
Conceptual study of building an AI-powered autonomous driverless car application using Yolo V5 object detection algorithm. Reinforcement learning solution implemented for intelligent path tracing.
- **Vision-guided intelligent robotic arm** **2019**  
Designed and built a 4-degree-of-freedom (DOF) robotic arm capable of sorting-coloured objects using OpenCV library on raspberry pi 3 microcontroller incorporated with camera.

## TRAINING AND WORK EXPERIENCE

---

### **Embedded Systems Intern | Emertxe Information Technologies** **2024**

- Government of India certified program, aligned with Skill India / NSDC under Electronics Sector Skill Council of India (<http://www.essc-india.org>) - Embedded Software Engineer QP ELE /Q1501.
- Utilized advanced C programming techniques to design efficient algorithms, implement recursion, and manage complex data structures for embedded applications.
- Designed and executed microcontroller-based systems, interfacing GPIOs, timers, and counters for optimized embedded program performance.
- Gained hands-on experience with communication protocols such as UART, SPI, and I2C, ensuring seamless integration of hardware components.
- Performed in-depth analysis and debugging of embedded programs, ensuring efficient memory usage and adherence to project guidelines.

### **Associate engineer | VKC International Pvt Ltd** **Mar 2020 to Nov 2021**

- Enhanced automation and optimized production processes by designing and implementing automated systems and integrating robotics. I managed preventive and predictive maintenance on electromechanical control systems. Additionally, I focused on production management and collaborated with cross functional teams to drive innovation and ensure high-quality output.
-