Vaibhav Raheja

vaibhavraheja32@gmail.com | +91 9820712740 | Mumbai, India | linkedin.com/vaibhav-raheja-05b85315b/
medium.com/@vaibhavraheja32 | github.com/Vaibhavr26

Education

Mukesh Patel School of Technology Management & Engineering, Mumbai, India 2017 – May 2023
Bachelors of Technology Computer Engineering (CGPA - 3.63/4) Expected
- Relevant Courses: Robotics, Embedded System and AI

Mukesh Patel School of Technology Management & Engineering, Mumbai, India 2017 – 2023
Diploma in Computer Engineering

Professional Experience

AIIMS (All India Institute of Medical Sciences) Hospital, New Delhi, India Feb 2021 – Feb 2023
Research Intern
- Research Project to Implement Robotic Intubation Using a Robotic Arm and Develop Control Systems for the Robot
- Project funded by the ICMR (Indian Council of Medical Research)

Granuler: CIO Consulting, Mumbai, India Jan 2020 – May 2020
Intern
- Project CRM (Customer Relation Management Implementation)
  - Implemented a CRM system for Granuler CIO Consulting.
  - Gathered requirements from the client and finalized them on HubSpot CRM. Implemented them and trained the client on the same.
- Project RPA (Robotic Process Automation)
  - Used UiPath to automate the CEOs workflow

Intelligence Node, Mumbai, India Jul 2018
QA Intern
- learned the basics of web applications, understood beta testing and implemented tests on multiple web applications.

Academic Projects

Chronic Disease Detection System using Machine Learning 2021 – 2022
B.Tech Final Year Project
- Developed an expert system used to detect/predict various chronic diseases by collecting various health details of a patient using Machine Learning models to provide a helping hand to doctors. With an accuracy of over 90%
- Implemented for: COVID-19, Pneumonia, Heart Disease, Chronic Kidney Disease, Diabetes

Home Automation 2020
- Developed a complete system to control most electronics from a mobile phone or using voice commands on google assistant.
- Achieved this using ESP-8266 microcontroller. Some electronics include Lights, fans, Air conditioners, and RGB-controlled lights.

Soft Robotics Hand 2022
- Soft Robotics Hand controlled by stepper motors that will be able to grab almost any object
- It reads my hand's position using OpenCV and replicates it onto the robotic hand.
- The future scope of this is to assist doctors in holding specific tools during surgery.

Skin Disease Detection 2019
- Used Transfer Learning with CNN (Convolutional Neural Network) to detect over 20 Skin Diseases with an accuracy of 90%

Publications

Multi-Disease Prediction System using Machine Learning 2022
IEEE International Conference on Futuristic Technologies (INCOFT)

Extra Curricular Activites

Intelligent Ground Vehicle Competition, Detroit MI, USA 2020 – 2022
Vice-Captain
- Achieved 3rd place at an annual international competition hosted at Oakland University, Michigan, in which multidisciplinary teams compete to create an autonomous vehicle according to a set of rules in order to compete. Developed a fully functioning autonomous vehicle with object detection, path planning & traversal.

Rotaract Club of Bombay Airport, Mumbai, India 2019 – 2021
Board of Director of Club Service from 2020-21
- Initiated all Club Service activities, supervised and coordinated the work of the committees appointed for particular aspects of Club Service and ensured the smooth and effective running of the club, and created a climate and culture that make our club inviting, appealing, and interesting.

e-Yantra Robotics Competition (eYRC), Mumbai, India 2020 – 2021
- A Competition held by IIT Bombay. Our task was to make a drone for the delivery of parcels

The Editorial Project by MPSTME, Mumbai, India 2019 – 2020
Head of Logistics
- Organised a concert by The Local Train at JRM Grounds

Roller Hockey, Mumbai, India 2012 – 2013
Team Captain
- Achieved 3rd place in a National Level Roller Hockey Tournament in Haryana.

Lane Detection using Hough Transform and Histogram 2019
- Wrote an article to explain lane detection using computer vision using the Hough Transform. This article has approximately 400 reads.

Technical Skills

Programming
- Python
- C++
- ROS
- Machine Learning

Micro-Controller Boards
- Arduino
- Rasberry Pi

Software
- Fusion 360
- MS Office