# Vaibhav Raheja

✉ vaibhavraheja32@gmail.com  📞 +91 9820712740  in linkedin.com/vaibhav-raheja/  ⚑ vaibhavr26.github.io

▸ medium.com/@vaibhavraheja32  ○ github.com/Vaibhavr26  ◆ wk5MGscAAAAJ

## Professional Experience

### Research Intern
*All India Institute of Medical Sciences (AIIMS) Hospital*
2021 – 2023
- Worked on a research project utilizing a robot arm for Robotic Oral Surgery using ROS & Python.
- The project was funded by the Indian Council of Medical Research (ICMR) for $85,000

### Intern
*Granuler: CIO Consulting*
Jan 2020 – May 2020
- Implemented CRM (Customer Relation Management) system using HubSpot CRM, improving his workflow by 40%
- Automated CEO's workflow using UiPath for Robotic Process Automation (RPA).

### QA Intern
*Intelligence Node*
Jul 2018
- Gained experience in web application testing and beta testing

## Academic Projects

### Chronic Disease Detection System using Machine Learning
*B. Tech Final Year Project*
- Developed an expert system achieving over 90% accuracy in predicting chronic diseases such as COVID-19, Pneumonia, Heart Disease, Chronic Kidney Disease, and Diabetes.

### Soft Robotics Hand
- Developing a Soft Robotics Hand controlled by stepper motors.

### Custom Surveillance Drone
- Built a custom surveillance drone with a modular 3D-printed body and specific components.

### Home Automation
- Designed a system to control electronics using mobile phones and voice commands with Google Assistant.

### Skin Disease Detection
- Developed a machine learning model using Transfer Learning and CNN, achieving 88% accuracy in detecting various skin diseases.

## Skills

### Programming
Python, C, C++, Robot Operating System(ROS), Machine Learning, AI, HTML, CSS

### Software
Autodesk Fusion 360, Microsoft Office, Arduino IDE, Anaconda

## Education

### Master's of Engineering Autonomy and Robotics
*University of Illinois Urbana-Champaign*
2023 – present | Champaign, IL, USA

### Bachelor's of Technology Computer Engineering
*Mukesh Patel School of Technology Management & Engineering, Mumbai, India*
2017 – 2023 | Mumbai, India

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

## Publications

### Multi-Disease Prediction System using Machine Learning
*IEEE International Conference on Futuristic Technologies (INCOFT)*
Nov 2022
- DOI: 10.1109/INCOFT55651.2022.10094382
- ISBN:978-1-6654-5046-1

### Lane Detection using Hough Transform and Histogram
2019
- Article explaining lane detection using computer vision and Hough Transform.

## Extra-Curricular

### Intelligent Ground Vehicle Competition (IGVC), Detroit MI, USA
*Co-Captain*
2021 – 2023
- Led team to a 2nd and 3rd place in the Cyber and AutoNav Challenge, demonstrating proficiency in autonomous vehicle navigation

### e-Yantra Robotics Competition (eYRC), Mumbai, India
2020 – 2021
- Participated in a competition held by IIT Bombay to make a drone for the delivery of parcels.

### Rotaract Club of Bombay Airport, Mumbai, India
*Board of Director of Club Service*
2019 – 2021
- Managed and initiated Club Service activities, ensuring the effective running of the club.