

Vaibhav Raheja

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Education

University of Illinois Urbana-Champaign <i>Master's of Engineering Autonomy and Robotics</i>	2023 – present Champaign, IL, USA
Mukesh Patel School of Technology Management & Engineering <i>B. Tech in Computer Engineering</i>	2017 – 2023 Mumbai, India
Mukesh Patel School of Technology Management & Engineering <i>Diploma in Computer Engineering</i>	2017 – 2023 Mumbai, India

Professional Experience

All India Institute of Medical Sciences (AIIMS) Hospital <i>Research Intern</i>	2021 – 2023
<ul style="list-style-type: none">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	
Granuler: CIO Consulting <i>Intern</i>	Jan 2020 – May 2020
<ul style="list-style-type: none">Successfully implemented a CRM (Customer Relation Management) system using HubSpot CRM, streamlining workflow and increasing efficiency by 40%.Automated CEO's tasks using UiPath for Robotic Process Automation (RPA), resulting in at least 20% saving in resources.	
Intelligence Node <i>QA Intern</i>	Jul 2018
<ul style="list-style-type: none">Gained experience in web application testing and beta testing	

Extra-Curricular

Intelligent Ground Vehicle Competition (IGVC) <i>Co-Captain</i>	2021 – 2023 Detroit, USA
<ul style="list-style-type: none">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)	2020 – 2021 Mumbai, India
<ul style="list-style-type: none">Participated in a competition held by IIT Bombay to make a drone for the delivery of parcels.	
Rotaract Club of Bombay Airport, <i>Board of Director of Club Service</i>	2019 – 2021 Mumbai, India
<ul style="list-style-type: none">Managed and initiated Club Service activities, ensuring the effective running of the club.	

Skills

Programming Python, C++, Robot Operating System(ROS), OpenCV, PyTorch	Software Autodesk Fusion 360, Linux, Git, UiPath, Microsoft Office
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Interpersonal

Technical writing, Leadership, Project Management

Projects

Chronic Disease Detection System using Machine Learning <i>B. Tech Final Year Project</i>
<ul style="list-style-type: none">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 <ul style="list-style-type: none">Developing a Soft Robotics Hand controlled by stepper motors.
Custom Surveillance Drone <ul style="list-style-type: none">Built a custom surveillance drone with a modular 3D-printed body and specific components.
Home Automation <ul style="list-style-type: none">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.

Publications

Multi-Disease Prediction System using Machine Learning <i>IEEE International Conference on Futuristic Technologies (INCOFT)</i>	Nov 2022
<ul style="list-style-type: none">• DOI: 10.1109/INCOFT55651.2022.10094382• ISBN:978-1-6654-5046-1	

Lane Detection using Hough Transform and Histogram	2019
<ul style="list-style-type: none">• Article explaining lane detection using computer vision and Hough Transform.	