

Vaibhav Raheja

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Education

University of Illinois Urbana-Champaign

Master's of Engineering Autonomy and Robotics

2023 – present
Champaign, USA

Mukesh Patel School of Technology Management & Engineering

B.Tech and Diploma in Computer Engineering

2017 – 2023
Mumbai, India

Professional Experience

All India Institute of Medical Sciences (AIIMS) Hospital

Research Intern

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

Granuler: CIO Consulting

Intern

Jan 2020 – May 2020

- 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.

Extra-Curricular

Intelligent Ground Vehicle Competition (IGVC)

Co-Captain

2021 – 2023
Detroit, USA

- 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)

- Participated in a competition held by IIT Bombay to make a drone for the delivery of parcels.

2020 – 2021
Mumbai, India

Skills

Programming

Python, C++, Robot Operating System(ROS), OpenCV, PyTorch

Software

Autodesk Fusion 360, Linux, Git, UiPath, Microsoft Office

Projects

Chronic Disease Detection System using Machine Learning

- 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.

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

- Article explaining lane detection using computer vision and Hough Transform.

2019