

Rohan Mahesh Rao



GitHub: <https://rohanmrao.github.io/> | **+91 9148301001** | **Web Portfolio:** <https://github.com/Rohanmrao>

Profile

In the tech realm, my philosophy is clear: let the problem shape our approach. I'm fully committed to embracing the tech journey, fostering a culture of continuous learning, and championing collaborative problem-solving, as its where genuine innovation takes root. I'm experienced in software R&D, AI and Machine Learning (Deep Learning, Multi-Agent Reinforcement Learning) and would love to explore opportunities in these domains.

Experience

SOFTWARE R&D INTERN | QUALITAS TECHNOLOGIES PVT LTD | OCT 2023 - PRESENT

Machine Learning + Software Development: Exploring various applications of CV, deep learning and AI to build automated quality assessment pipelines and fault detection systems for industries.

- Developed an AI chatbot for client requirement analysis. Handled both front and backend developments
- Improved Qualitas DL pipeline performance by locally integrating the Vision Transformer DL model. Achieved a 10% accuracy increase of all classification tasks, in comparison with cloud-based models

TEACHING ASSISTANT (DIGITAL IMAGE PROCESSING) | PES UNIVERSITY | AUG 2023 - PRESENT

- **MATLAB Programming:** Responsible for assisting 5th semester ECE students on implementation of various image processing concepts using MATLAB

SUMMER INTERN | PIL (MICROSOFT INNOVATION LAB) | JUN 2023 – AUG 2023

- **Collaborative Robotics:** Led a team of 4 interns in implementing cutting-edge multi-agent RL algorithms for autonomous robot manipulation in warehouses
- Was responsible for code review and program management

MANAGEMENT EXECUTIVE | PESU I/O | FEB 2021 – OCT 2021

- **Curriculum Development, Business Development and Recruitment:** Contributed to the analysis and optimization of the company's business strategy, cost model, and marketing outreach to boost annual profits. Additionally, oversaw tutor and SME hiring

Education

PES UNIVERSITY

Bachelor of Technology, Electronics and Communication Engineering | GPA: 3.1 / 4.0

- 4X DAC (Distinction Award Certificate) holder for semesters 1,2,5 and 6

Skills

- **Software Development** - HTML, CSS, JS, MERN
- **Languages** – Python, JavaScript, MATLAB
- **AI/ML** – TensorFlow, PyTorch, OpenCV, scikit
- **Others** – Git, Docker, LaTeX, Azure Cloud

Projects

- **ML Driven Audio Visualizer:** Music genre classifier interfaced with a controllable LED array, to obtain real time music visualization.
View here: https://github.com/Rohanmrao/Audio_Visualizer
- **ML Assisted De-speckling of Images:** Used various machine learning and deep learning models to predict optimum filter sizes for image denoising, based on the amount of noise present in the image (blind denoising). Won the best project award for the course Digital Image Processing (UE20EC317).
View here: <https://github.com/Rohanmrao/Image-Despeckling>
- **Career Guidance System for Soldiers:** Created and deployed an ML based career guidance system, specifically for the ex-military. Used physical and mental performance data (collected during the time of service) to suggest career options after the military tenure of soldiers.
View here: <https://github.com/Rohanmrao/Career-Guidance>
- **FRedBots:** Internship project at PIL. Implemented a multi-agent reinforcement learning (MARL) algorithm for task scheduling in a collaborative robotic system, with a focus on package transportation and logistics within warehouses.
View here: <https://github.com/Rohanmrao/fredbots>
- **Rohanmrao - Webfolio:** Created a personal web portfolio to introduce myself. Primary tech stacks used were HTML, CSS, JS, Node.js, express.js, MongoDB and git.
View here: <https://rohanmrao.github.io/>

See more projects: <https://github.com/Rohanmrao>

Positions of Responsibility

School

- **Ekya School (2018): Head of Student Council** - Head Boy

Volunteering

- **Dept. of ECE, PESU (Community Development Volunteer):** Engaged students from a government school in various productive team building activities. Gave them basic computer skill training

Hackathons

- **Synapse 23':** Was the Robotics/ML mentor for a national level hackathon hosted by the department of ECE at PESU
- **Robofest 21' (IEEE RAS PESU):** Lead a team of 4 to bag the 2nd place in the open innovation domain

Music

- **Lead Guitarist:** Co-founder and guitarist for the band 'Crescendo' at PESU