

Rushikesh Santosh Mahendrakar

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Objective

A highly motivated and results-driven professional with a Strong background in Mechanical Engineering, and Masters in Automation Control and Robotics Engineer. During my Masters Degree I had learn Modules like Robotics, Industrial Automation, Control of Linear System, Advance Control Methods, Machine Vision, Artificial Intelligence, System of Chips, and done many short projects. While in Robotics I had learn Industrial Robot Programming for Kuka, ABB Robot. Path Planning and Virtual Environment Designing for Warehouse Robots using Matlab and which led me to increase my Robotics Engineering skill sets. Skills:- ROS, Matlab, Gazebo, Solidworks, Ansys, Hyperworks, ABB, Kuka Industrial Robot Programming.

Experience

- Tata Consultancy Services (Maharashtra, India)** 12/2021 - 09/2023
Backend Developer
Worked as a Backend Developer in TCS, having Proficiency in a Python, Angular, React, Java Script and Sqlite, Postman(API), Dynatrace Dashboard Creation, ETL, Devops and GitHub. Handling Major Incidents and Mi calls leading the team of 5 members in ORE 2.0.
- Endurance Technology Pvt Ltd (Maharashtra, India)** 01/2021 - 07/2021
Quality Assurance Engineer
Join as a Intern for 6 months as a Quality Assurance Engineer where I had worked as a Final Inspector for to check the Quality of the product during Final Inspection. Also works on CMM for to measure coordinates of the job.
- Dhananjay Metal Craft Pvt Ltd (Maharashtra, India)** 12/2018 - 01/2019
Production and Process Planning
Join as Intern, where Field Training include Introduction to Product Layout and Quality Assurance where Final Quality Inspection of Product have been done. Work on CNC, VMC and HMC Programming for to setup for future projects of the industry.

Education

- Sheffield Hallam University, United Kingdom** 2023-2024
Master of Science (Automation Control and Robotics)
Module Passed:- Control of Linear System, Advance Control Methods, Artificial Intelligence, Robotics, Industrial Automation, System of Chips, Machine Vision, Project and Quality Management.
- Dr Babasaheb Ambedkar Technological University, India** 2017-2021
Bachelor of Technology (Mechanical Engineering)
8.02/10
- Higher Secondary Board of Education, Maharashtra, India** 2015-2017
Higher Secondary Education (Physics, Chemistry, Mathematics and Biology)
6.85/10
- Secondary Board of Education, Maharashtra, India** 2014-2015
Secondary School
8.15/10

Skills

- ROS2 Using Linux(Work on Building Industrial Robot using Robot DK, Gazebo, ABB Robot Simulation, Creation of Different Robotics Environment using Matlab for Industry).
- Machine Learning with Python.(Work on different small projects of Data Analytics and Data Science using pandas and numpy, Matplotlib Libraries)
- Artificial Intelligence (LLM, Neural Network and Deep Learning)
- Automation Studio, PLC programming using Siemens Tia Portal, IOT(Certified Information of Things, Arduino Platform with C Programming Course from Coursera), Raspberry Pi.
- Autocad, Solidworks, Siemens Nx(Can create 2D CAD design, 3D Models work on many designing Projects)
- Ansys, Hyperworks(Able to do Structure Analysis, Solid and Surface Meshing using 2D and 3D Elements.)
- Python(Certified Python with Everybody and Python Data Structure Course from Coursera)
- German Language (Pursuing)

Projects

- **Modelling, Analysis and Simulation of Load carrying Planetary Rover using Chain Drive**
Design Load Carrying Planetary Rover for MS Project and Dissertation Module with new invention using Chain Drive for Robust Mobility which is replacement of traditional wheels for future Mars Exploration Mission. The Design is quite simple reduces number of motors hence the power to drive the rover is also reduced, gives good performance for Power Transmission and good enough to Carry Load of 700 N on Mars Territory.
- **Kroger Digital Pvt Ltd**
The Kroger Company is an American retail company that operates supermarkets and multi-department stores throughout the United States. Providing Client services to Kroger from TCS as Backend Developer by supporting their Production Department Software and resolving their production related issues at Business end.
- **Build Virtual Environment for Warehouse Robots**
Build 2D, 3D Virtual, Working Environment in Matlab for Warehouse cobots and done Path planning by adjusting their Potential Fields so that there should be good communication between Cobots and they should not interrupt while working in Warehouse.
- **All-terrain Vehicle, SAE M-BAJA**
- **Build Chat Bot (Built chatbot and User Interface using LLM model)**
- **Fault Detection Diagnosis (Identified Faults in the System)**
- **FPGA Logic, Developed Cortex M Based SOCs, Checking performance of STM32H7 MCU.**
- **Design PLC Circuit in Automation Studio**
- **Stabilizing Control System and Calculated Steady State Error.**

Achievements & Awards

- Kroger Major Incident Transformer of the Year (Good interpersonal skills)
- BAJA SAE India 2020 Certificate of Excellence and Partition.

Activities

- Social Activity-Plogging(Aurangabad Ploggers)

Reference

- **Leon Shapnin - Sheffield Hallam University**
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- **Howard Stratton - Sheffield Hallam University**
Professor (Academic Advisor)
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