

Rutvik Joshi

Robotics Engineer

Diligent and dependable Engineer with good interpersonal skills and technical knowledge.

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EDUCATION

Mechanical Engineering

Sandip Institute of Technology and Research Centre

08/2017 - 07/2021

7.65 CGPA

B.E.

- In-Pipe Water Leakage Detection Robot

PERSONAL PROJECTS

Detecting COVID-19 with Chest X-Ray using PyTorch

- Detecting COVID-19 with Chest X-Ray using a ResNet-18 model and train it on a COVID-19 Radiography dataset containing nearly 20k Chest X-Ray scans which are categorized in three classes - Normal, Viral Pneumonia and COVID-19.

ROS Navigation of TurtleBot3 Robot

- Navigation package that included files for SLAM and Path Planning of Turtlebot3 Burger was created in this project which was tested in the simulation environment the map of which is included in the package.

URDF for Robot Modelling (JIBO)

- Creating the URDF file containing inertial, collision and visual tags for the robot and creating the .yaml file for the control of the robot.

WORK EXPERIENCE

Robotics Engineer

FlytBase

08/2021 - Present

Pune, India

FlytBase provides drone agnostic software solutions to automate and scale drone operations. It is the world's first Internet of Drones Platform.

Achievements/Tasks

- Developed python program to live stream docking station video feed to FlytNow Dashboard using web rtc.
- Created python script using object-oriented programming for pushing Over-the-air updates to remote devices.
- Developed a pipeline for employing deep learning algorithms using the darknet_ros package and the YOLOv4 model on the drone's live video stream for running object detection and then publishing the processed video feed to the dashboard with minimal latency.
- Created C++ program for enhancing the waypoint mission planning of the DJI/PX4/Ardupilot drones.

SKILLS

Python

Matlab

C++

ROS

SLAM

Creo

URDF

Robotics

Computer Vision

Arduino

CERTIFICATES

ROS (Python) Noetic (TheConstruct)

URDF for Robot Modeling (TheConstruct)

TF ROS 101-Noetic (TheConstruct)

ROS Control 101-Noetic (TheConstruct)

Code Foundation For ROS (TheConstruct)

Introduction to Programming with MATLAB (Vanderbilt University | Coursera)

Robotics : Aerial Robotics (University of Pennsylvania | Coursera)

Computer Vision (University at Buffalo | Coursera)

Python (Udemy)

Arduino Workshop (Udemy)

Introduction to Rocket and Satellite Engineering (Skolkovo Institute of Science and Technology)

Artificial Intelligence (IIM Bangalore | MyCaptain)

Internet of Things (IIM Bangalore | MyCaptain)

LANGUAGES

English

Full Professional Proficiency

Hindi

Native or Bilingual Proficiency

Marathi

Native or Bilingual Proficiency

German

Elementary Proficiency

INTERESTS

Robotics

Volunteer Work

Reading Books

Playing Guitar

Volleyball

Cricket