### **DIKSHANT RAJ**

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#### **EDUCATION**

Course Name	Duration	University/Board	Percentage/CGPA
B.Tech Computer Engineering	2019 - 2023	Delhi Technological University, Delhi, India	8.84 CGPA
AISSCE (Class XII)	2019	CBSE, India	79.4%
AISCE (Class X)	2017	CBSE, India	10 CGPA

### **POSITIONS OF RESPONSIBILITIES**

# **Software Design Engineer at INFERNO DTU**

 Managed the Software Team of Inferno DTU developing a Mars Rover Prototype for the European Rover Challenge (ERC) with autonomous traversal capabilities over rough terrain coupled with obstacle detection and 3D/2D Mapping using a stereo camera and LIDAR

# Co-Head Digital Media Team at ENGIFEST DTU

 Managed the Photography and Videography team of Engifest DTU. Created Fest Related Promotional Content and contributed to the After-Movie of the fest

#### **PROJECTS**

# **NOVUS Rover (Autonomous Martian Terrain Traversal Vehicle)**

Aug 2020 - Jun 2021

- Developing Autonomous Navigation System for Mars Rover Prototype for ERC using ROS
- Tech Stack: Robot Operating System (ROS), Python, Arduino, OpenCV
- Link: dikshantraj09/MarsRover-Prototype-Inferno-ERC (github.com)

#### **Exploring Data Acquisition and Trajectory with Android Device**

Jul 2020 - Nov 2020

- Collecting data from different sensors from an android phone sending it over a wireless connection in real-time, plotting it on a 3D plot and storing it into an SQL Database for further analysis.
- Air Mouse Project is a sub project of this project using which you would be able to control the pc cursor using the IMU of the phone.
- Tech Stack: Python, Kivy, SQL, Matplotlib, NumPy
- **Link**: dikshantraj09/Sensor\_Data\_Acquisition (github.com)

Autonomous RC Car Jun 2021

- Developed an autonomous vehicle that can navigate unknown areas using a LIDAR.
- Autonomous RC Car using ROS, Raspberry Pi-4, Arduino and L298n Motor driver, RP-LIDAR.
- Link: dikshantraj09/Autonomous\_RC\_Car (github.com)

House Photos NAS Jan 2021 - Feb 2021

- This Application uses Wi-Fi router's **ftp server** function to create a home **wireless NAS system** to automatically upload and download photos from the camera folder of the phone.
- Tech Stack: Flutter, Python
- Link: dikshantraj09/NAS Photos (github.com)

#### **SKILLS**

Languages: Python, C++, C

Frameworks/Libraries: Robot Operating System, OpenCV, Flutter, Django

Creative Skills: Photography, Video Editing, UI/UX Design

### **ACHIVEMENTS**

- Ranked Sixth Place in International Mars Hackathon by Mars Society South Asia (MSSA)
- Ranked Sixth Place in International Planetary Aerial Systems Challenge by MSSA
- NTSE (National Talent Search Examination) Scholarship by NCERT
- Participated and Completed tasks in Google Code-in
- First Runner-up Global Youth Online Photography Competition