Krushnal Patel

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SKILLS

LANGUAGES

C++ • HTML/CSS • LaTeX
Python • JavaScript

TOOLS+TECH

ROS • Linux • ReactJS
NodeJS • git

SOFT SKILLS

Leadership • Communication

EDUCATION

DELHI TECHNOLOGICAL UNIVERSITY

B.Tech in Computer Engg.
Expected 2023 | New Delhi
Cum. GPA: 6.6

NEW MILLENNIUM SCHOOL

CBSE XII - SCIENCE
2019 | Bahrain
Percentage: 91%
SCHOLAR'S BADGE

INDIAN SCHOOL, BAHRAIN

CBSE X
2017 | Bahrain
Cum. GPA: 9.6/10

ABOUT ME

I am a software development enthusiast specializing in autonomous mobility, Web Development and robotics. Other hobbies and interests include cybersecurity and Artificial Intelligence.

LINKS

GitHub:// **krush11**
LinkedIn:// **krushnal**
My Portfolio: **krushnal.me**

SOCIETIES

COGNITIVE MINDS

Debating Co-Head
2020 - Present

- Participated in various debating competitions including IIT-BHU and IIT-Kanpur fests

EXPERIENCE

DEFIANZ RACING — Navigation Lead

Oct 2020 - Present | New Delhi

- Part of a team that made the **first autonomous F1 car** in **India**
- Developed robust Path Planning algorithm using **navstack** for **ROS noetic**
- Responsible for integration of **SLAM** into **ROS framework**
- Tuned and tested the simulation intensely to bring out the best performance of the vehicle

DTU SELF-DRIVING CARS — Software Architect

Dec 2019 - Sept 2020 | New Delhi

- Developed software suite of an autonomous vehicle for **IGVC'20** *(canceled due to COVID'19)*
- Integrated data from sensors into **ROS framework** with **NMEA 0183** compliance
- Build custom arduino scripts to extract data from rotary encoders

CODING NINJAS — Teaching Assistant

Sept 2020 - Jan 2021 | Online

- Mentored a batch of 20 students in competitive coding in C++
- Resolved bugs in MERN stack
- Evaluated NodeJS and ReactJS projects

TECHNICAL PROJECTS

WALL FOLLOWING ROBOT

ROS, Linux, git

- Built a simulation of a center wall following robot using *roscpp* and *rospy*
- Designed the URDF and customized it by adding a lidar plugin into Gazebo
- Developed a multiplexer to integrate all nodes.
- Tuned and tested the simulation extensively to work under extreme velocities.

OPEN SOURCE CONTRIBUTIONS

- OpenCV **openCV : PR # 19301**
- OpenCV **openCV : PR # 18590**
- Google **gnostic : PR # 226**
- Frappe **erpnext : PR # 23933**