

# Krushnal Patel

+91 7778091174 | krushnalpatel11@gmail.com

## SKILLS

### LANGUAGES

C++ • HTML/CSS •  $\text{\LaTeX}$   
Python • JavaScript

### TOOLS+TECH

ROS/ROS2 • 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

## AREAS OF INTERESTS

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
- Integrated robust Path Planning algorithm using **RRT** on **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 center wall following robot simulation using **roscpp** and **rospy**
- Designed the **URDF** and customized it by adding a lidar plugin into **Gazebo11**
- Developed a 4x1 multiplexer to integrate all nodes to control **ackermann drive**

## OPEN SOURCE CONTRIBUTIONS

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