

# Krushnal Patel

+91 7778091174 | krushnalpatel11@gmail.com

## SKILLS

### LANGUAGES

C++ • HTML/CSS •  $\text{\LaTeX}$

Python • JavaScript

### TOOLS+TECH

ROS/ROS2 • Linux • ReactJS  
NodeJS • git • mongoose

### SOFT SKILLS

Leadership • Communication

## EDUCATION

### DELHI TECHNOLOGICAL UNIVERSITY

#### B.TECH IN COMPUTER ENGG.

Expected 2023 | New Delhi  
Cum. GPA: 7.4/10  
(as of III semester)

### 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

Oct 2020 - Present | New Delhi

- Part of a team that aims to make the **1st autonomous F1 car in India**
- Built **pure pursuit** lateral controller and integrated it along with PID
- Responsible for integration of **SLAM** into **ROS framework**
- Tuned and tested the simulation intensely to bring out the best performance of the vehicle

### NAVIGATION LEAD

### DTU SELF-DRIVING CARS

Dec 2019 - Sept 2020 | New Delhi

### SOFTWARE ARCHITECT

- 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

Sept 2020 - Jan 2021 | Online

### TEACHING ASSISTANT

- Mentored a batch of 20 students in competitive coding
- Debugged codes and assignments in C++14 and higher

## 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

### PROJECT LIGHTSPEED

NodeJS, HTML5/CSS3, MongoDB, git

- A secure lightweight and robust website to aid multi-national COVID-19 vaccine re-distribution
- Used **NodeJS** to build backend along with **MongoDB** for managing database
- Designed website using MVC pattern
- Used Embedded JavaScript for displaying static files

## OPEN SOURCE CONTRIBUTIONS

- OpenCV [openCV](#): PR # 19301
- OpenCV [openCV](#): PR # 18590
- Google [gnostic](#): PR # 226
- Frappe [erpnext](#): PR # 23933