

Krushnal Patel

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SKILLS

LANGUAGES

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

TOOLS+TECH

ROS/ROS2 • Linux • ReactJS
NodeJS • MongoDB • VCS
CI/CD

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

NAVIGATION LEAD

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

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
- 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** design pattern for user interface
- Other packages used are **EJS** for renderign static files and **PassportJS** for user authentication

OPEN SOURCE CONTRIBUTIONS

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