# Krushnal Patel

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## SKILLS

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

### TOOLS+TECH
Linux • ReactJS • NodeJS • ROS
MongoDB • Azure • Socket.IO
CI/CD • VCS

### 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)

## OSS CONTRIBUTIONS

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

## 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
Joint Secretary
2020 - Present
Participated in various debating competitions including IIT-BHU and IIT-Kanpur fests

## EXPERIENCE

### LINUX MENTORSHIP PROGRAM @ ATOM          Student Developer
June 2021 - Aug 2021 | International
- Selected as one of the **200 students worldwide till date** for a 3 month mentorship program
- Made major contributions in improvement of the extensions of assembly languages **PL/X, Rexx, NAMES and gml** on **ATOM**
- Improved the **syntax highlighters** adding support for macro statements, keywords identifiers etc. by designing required regexp
- Published the packages to **ATOM registry** and are now used heavily for improved coding experience by **IBM developers**

### OGMEN ROBOTICS          Software Developer Intern
June 2021 - Aug 2021 | New Delhi
- Developed **web sockets-based** video conferencing app using **TCP** using ZoomSDK's API
- Integrated remote joystick control for robots in real-time using **ROSBridge server** through a nodejs server with a low-latency of **<300ms**
- Implemented two-way data transfer using **SocketIO** in a **polygot environment**
- Used **ngrok** for **ssh tunneling** as a workaround for blocked port forwarding.

### 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

### DEFIANZ RACING          Software 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**
- Designed and deployed the **official team website** using **NodeJS and MongoDB**
- Responsible for maintenance and addition of new features to the website

### 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** with **NMEA 0183** compliance
- Build custom arduino scripts to extract data from rotary encoders

### SIMPLIGIT          npmjs.com/simpligit
npm, git, JavaScript
- A **guided CLI** for **git** to aid new developers to use git.
- Achieved **over 400+ downloads** and users within a week