

## WORK EXPERIENCE

website: <https://hshkumar.github.io/>

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### Mars Rover(Team InfernoDTU)

Aug 2018 – Jan 2019

*Software and Autonomous Head*

- Led the department in development of Mars Rover Prototype to compete at international level.
  - The rover obstacle detection system worked accurately without any video feed lag.
- Designed a system for navigation using pixhawk.
- Establishing data communication from remote distance to base station in real time.

### Go-Kart(Team InfernoDTU)

Oct 2017– May 2018

*Machine vision technical member*

- Innovate and upgrade the software, hardware capabilities of the system to detect lanes & pedestrians.
- Integrating software with Raspberrypi in real time processing.

### Defence Research and Development Organisation (DRDO) - Summer Intern

6 June – 26 July 2019

*Trainee*

- To study advanced manufacturing machine tools and welding techniques.
- Basic working of cryocooler and production of liquid nitrogen.

## ACHIEVEMENTS

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- Team Inferno DTU participated and won the 1st prize in skidpad and runner-up in autocross, at International Go-Kart Championship'18 (IGC'18).
- Team Inferno DTU participated at Indian Rover Challenge(IRC'19) held in Manipal Institute of Technology and secured 6th position among the 32 teams from 5 countries across the world.
- Completed 'Introduction to Psychology(Coursera)', 'Python Data Structures(Coursera)', 'Data Visualization (Kaggle)', 'AWS Machine Learning Foundation Course(Udacity)', 'Modern Deep Convolutional Neural Networks with Pytorch(Udemy)'.

## EDUCATION

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### Delhi Technological University(formerly DCE)

Class of 2020

*Mechanical Engineering*

*New Delhi, India*

### Kendriya Vidyalaya, Masjid Moth

2016

### Kendriya Vidyalaya, Masjid Moth

2014

## SKILLS & INTERESTS

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- **Skills:** Python; C++; computer/machine vision; robot vision; machine learning(svm, randomforest etc); deep learning(Pytorch, tensorflow, keras); NLP; Neural Networks; Version control(git) ; SQL; MATLAB; robotic operating system; Linux (Ubuntu, Kali); raspberrypi; arduino; pixhawk; sklearn; pandas; leading; management.
- **Interests :** Meeting new people; basic korean speaking and reading; avid novel; blog reader; documentaries; animal facts; listening classical(piano).