Hitesh Kumar

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PROJECT EXPERIENCE

Portfolio: https://hiteshhedwig.github.io/

Mini Projects: **Aug 2020 – Current**

- Project SED-ev: A state-of-the-art self driving vision system that can efficiently perform the following:
  - Pedestrian detection(Using HOG), License plate detection (Using Detectron2), Car & Traffic light detection(Using Yolov4), Lane detection and tracking(Using Traditional Computer Vision).
- ThatsTheBreed: End to End FastAI based dog's breed detection model deployed with 85% accuracy
- COVIZ-ualise: Deployed interactive dashboard on heroku website using flask to gain data insight from COVID-19 with powerful visualisation tools like plotly, matplotlib.

Mars Rover(Team InfernoDTU) **Aug 2018 – Jan 2019**

Software Head

- Led the group of 7 members in the development of Autonomous Mars Rover Prototype to compete in competitions.
  - Improved quality of code & algorithm to significantly reduce the cost of hardware by 60%.
- Built system which uses GPS waypoints for navigation and Object detection using OpenCV in real time.
- Collected, retrieved, and debugged sensors data while testing rover for efficient real-time performance.

Go-Kart(Team InfernoDTU) **Oct 2017– May 2018**

Machine vision researcher

- Planning and presenting comprehensive reports on traffic signs, lane departure detection and ultrasonic sensor implementation process on affordable hardware.
- Trained Keras based CNN model achieved 98% accuracy for Dog vs Cat detection.

ACHIEVEMENTS

- 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 7th position among the 32 teams from 5 countries across the world.
- Completed 'Data Science Math Skills(Coursera)','Python Data Structures(Coursera)', 'Data Visualization (Kaggle)', 'AWS Machine Learning Foundation Course(Udacity)', 'Modern Deep Convolutional Neural Networks with Pytorch(Udemy)'.

EDUCATION

Delhi Technological University(formerly DCE) **Class of 2020**
B.Tech - Mechanical Engineering *New Delhi, India*
Kendriya Vidyalaya, Masjid Moth - XIIth Class *2016*
Kendriya Vidyalaya, Masjid Moth - Xth Class *2014*

SKILLS & INTERESTS

- Python, C++
- Computer Vision
- Machine learning(such as k-NN, Naive Bayes, SVM, Decision Forests Etc)
- Deep learning(such as Pytorch, tensorflow, keras)
- Data mining
- Semantic segmentation
- Data Visualization
- IoT

- **Interests :** Meeting new people, avid novel reader, documentaries, listening to classical music.