Tushar Shandilya

LinkedIn

Indian Institute of Technology - Varanasi (BHU)

EDUCATION

Program	Institution	%/CGPA	Year Of Completion
BTech - Mechanical Engineering	Indian Institute of Technology, Varanasi	8.76	2022
XII	Kendriya Vidyalaya	91.60	2018
X	Kendriya Vidyalaya	90.25	2016

SKILLS

- *Programming Languages:* C, C++, Python (Most Experience) || Octave, HTML, SQL (Some Experience)
- *Tools / Platforms:* Django, PostgreSQL, Git, Sublime Text-3 , Atom
- *Interests*: Competitive Programming, Mathematics, Machine Learning

WORK EXPERIENCE

FarmSaathi   **(October 2020 -December 2020)**

- Worked on an Autonomous BOT that is capable of entirely replacing wage workers on farmland.
- I developed an Algorithm to identify Crop lanes using Image Processing Techniques such as Image Segmentation, Hough Transform, Gaussian Blurring, Dilation, etc.
- Used the image data to predict steering direction for the BOT to avoid crushing the Crops below.

Clean Electric   **(July 2019 -October 2020)**

- Worked on a Tata Ace Chhota Hathi Vehicle and retrofitted it to an Electric Vehicle.
- I developed a Fuzzy Logic Torque Vectoring Controller for Torque Control of the two Motors and State Estimation of the Vehicle State using Kalman Filtering Algorithms for the fusion of IMU and GPS sensors.

PROJECTS

Complete Self-Driving Car

- Designed a complete Self-Driving Car by training a Deep Learning Model on training data generated from Udacity Simulator.
- The Model predicted the Steering Wheel Angles using front camera images of the car and performed well when tested on the Udacity Simulator.

  Exposure: NVIDIA Model for Behavioral Cloning, Image Data Augmentation Techniques

Clothing Recommendation System

- Developed a Deep Learning Model to recommend Clothing to Customers based on previous purchases.
- ResNet based pre-trained model was used on *Fashion-product-images-small* Dataset available on Kaggle.

  Exposure: Keras/TensorFlow, ResNet-50, Cosine Similarity, CNN

HONOURS & ACHIEVEMENTS

- **Winner** - Best technology Award at TIE Silicon Valley'20 held virtually being a part of Team Clean Electric.
- **Winner** - Hackathon on Textile Skill Development and Entrepreneurship organized by AIC.
- **2nd Position** - Water Rocket Pro organized by Aero-Modelling Club IIT(BHU) during Aagman'18.
- **Changed my discipline** - Metallurgy to Mechanical Engineering based on academic performance.
- **AIR 7310** - JEE-ADVANCED 2018.
- **Expert(rated 1680)** - Codeforces.

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