KARTIK GUPTA

Undergraduate at Thapar Institute of Engineering & Technology, Patiala(TIET)

@ kgupta6_be20@thapar.edu   📞(+91) 9056780278   🔗 kartik-gupta   ⭕itsmekartikgupta

EDUCATION

B.E (Computer Engineering)

Thapar Institute of Engineering & Technology, Patiala

📅 2020 - Present   **CGPA: 9.17/10**

Class 12th

Ryan International School, Chandigarh (CBSE)

📅 2019 – 2020   Percentage: 94.8%

Class 10th

Ryan International School, Chandigarh (CBSE)

📅 2017 – 2018   Percentage: 96%

SKILLS

Languages   C/C++   SQL/PLSQL   Python

Libraries-   NumPy   TensorFlow   Pandas

Concepts-   Data Structure   Algorithms

Interests-   Machine Learning

Computer Vision   Artificial Intelligence

ACOMPLISHMENTS

- Scored a perfect 10 CGPA in the first semester in TIET
- Completed E-Box coding platform given by TIET Under Computer Programming
- Courses completed: -
  - Supervised Machine Learning on Coursera by DeepLearning.AI (Stanford University)
  - Advanced Learning Algorithms on Coursera By DeepLearning.AI (Stanford University)
- Secured 3rd position in a team-based Political Analysis Event conducted by IIT Kanpur having three rounds with over 1000 students from 100 different colleges

INTERNSHIP

Research Intern

Under Dr. Sachin Kansal , Assistant Professor ,TIET
 "UAV-based Delivery Systems"
 At Experiential Learning Centre, TIET
 📅 **July 2022 – August 2022**

- Multidisciplinary team from 3 different branches, with the aim of providing last mile delivery using UAV's.

- Implemented a **Object Detection** model prototype using **yolov7** which could detect object in real time which was further implemented on ROS

- Also developed a **Realtime Multiclass Gesture Recognition model** to maneuver the UAV using **MediaPipe Holistics** and **LSTM** model with **TensorFlow** framework to predict the gesture. Additionally helped in developing code to route the UAV.

- Simulation successfully achieved for phase one on ROS. Phase two including hardware specifics and customer authentication using face recognition is being carried beyond ELC timeframe

PROJECTS

Engineering Design Project – Buggy

- Group Project

- Created an autonomous vehicle that is under wireless supervisory control from a remote station and safely coexists with other vehicles.

- Designed and implemented a micro-simulation of therail system (such as 'Trams' in the metro city)

- Developed using **Arduino** and tested circuits on **Tinker CAD**

- My primary role was developing the code for the vehicle using Arduino IDE

Mini-Projects on Instance Segmentation

- Instance Segmentation using **Mask-RCNN** Model in Realtime using **OpenCV** with PixelLib Library in Python and on a annotated custom image dataset using Mask-RCNN