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REPORT ON OPEN CV WORKSHOP

Introduction:

On March 29th, 2023, an introductory OpenCV workshop was organized by IEEE RAS club in AB1 508, VIT Chennai. The workshop was designed to introduce participants to the basics of OpenCV and its numerous applications in the field of computer vision and machine learning. The workshop was led by the data science leads namely Jesher Joshua and Jaskaran Singh under the faculty co-coordinators Dr. Sucheta M and Dr. Balaji V R.

Learnings:

The OpenCV workshop was an immersive learning experience for me. It started off with a comprehensive introduction to machine learning and computer vision. The student co-coordinators began the session by explaining the fundamental concepts of machine learning, such as supervised, unsupervised, and reinforcement learning along with its flowchart in the presentation slide. They then introduced the three types of machine learning algorithms, namely classification, regression, and clustering. This provided a solid foundation for understanding how machine learning can be applied in computer vision.

Live Demos:

We then delved into the basics of computer vision, discussing its various applications and providing an overview of the workflow for an OpenCV project. As an attendee, I was shown how to identify objects in images using techniques such as feature extraction and object detection. We were then presented with a real-life application of these techniques where we had to differentiate between a car in a blue box and a man in a red box enclosed in an image.

CV Project:

To reinforce our learning, we were given a challenging task to create a Python program that uses OpenCV to detect and identify pokemon playing cards using tools such as the github, Collab and Jupyter NB platform. We were then asked to deploy the model by drag and dropping an image of a Pokemon onto a deployment link to determine its type.

Conclusion:

Overall, the OpenCV workshop was an excellent learning experience that provided me with a practical understanding of machine learning and computer vision. The hands-on approach and real-life applications made it easier for me to grasp complex concepts and apply them in my future projects.