Object Detection using Tensorflow

TensorFlow is an end-to-end open source platform for machine learning. It has a comprehensive, flexible ecosystem of tools, libraries, and community resources that lets researchers push the state-of-the-art in ML and developers easily build and deploy ML powered applications. TensorFlow was originally developed by researchers and engineers working on the Google Brain team within Google's Machine Intelligence Research organization to conduct machine learning and deep neural networks research. The system is general enough to be applicable in a wide variety of other domains, as well.

Object detection using Tensorflow can be a valuable tool in an online exam portal. By utilizing object detection, the system can detect and prevent cheating attempts during an exam, as well as ensure that students are present and engaged throughout the exam.It is a challenging task in computer vision that involves identifying and localizing objects within an image or video. Tensorflow, a popular machine learning framework, provides a wide range of tools and libraries for implementing object detection models. The most common approach for object detection using Tensorflow is the Faster R-CNN architecture, which combines a region proposal network (RPN) with a convolutional neural network (CNN). The process of building an object detection model using Tensorflow involves collecting and preprocessing training data, training a CNN for feature extraction, training an RPN for object proposal, training an object detection model, and evaluating and fine-tuning the model as needed. Tensorflow provides a number of libraries and tools to simplify the process of building object detection models, including pre-trained models, training scripts, and tools for data preprocessing and evaluation. Overall, object detection using Tensorflow can improve the integrity and fairness of online exams and provide additional support for students during the exam-taking process.