

Securetest Examination Monitoring System

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Abstract: In nowadays cheating is an immoral way of achieving higher grades in school by breaking rules and regulations. This dishonest behavior of students is becoming one of the most serious issue, particularly with all the technological developments, and it considerably threatens the educational systems in every field. Approximately 70% of school students in the admitted that they were involved in direct and/or indirect cheating actions during exams, homework, term projects, reports, papers and presentations using a variety of cheating techniques. The technology used include all kinds of cell phones, camera phones, earphones, multifunctional watches, etc. These issues are more crucial for every online courses, which are gaining popularity for the full-time employees who wish to further their education. We will be creating a system which in real time will analyze in real time examination hall footage to identify activities that maybe classified as unfair means. Our Model will use state of the art object detection to detect items such as Phones, Earphones and Unwanted Chits. We will also be using motion detection to detect unusual motion or behavior of candidates. Our Facial Recognition software will also match the candidates sitting in exam with the database photos to prevent any illegal person giving the exam.

KEYWORDS: Facial Recognition software, object detection.



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INTRODUCTION

It helps in preventing any sort of cheating measures that might be taken by the students and reinforce integrity and honesty in students. It help in understanding a sense of responsibility and seriousness regarding cheating. My app digitize the whole invigilation process and lend a helping hand to the examination conducting agencies. It change the definition of success and hard work in the minds of students. Using motion detection to detect unusual motion or behavior of candidates. This system will help in completely getting rid of the old and highly inefficient systems used to prevent cheating. It help in creating a sense of honesty and diligence in the heart of students while giving exams. Digitize the invigilation process and thus provide an added layer of proctoring so that no correct judgment can be passed and help in nurturing creativity in up and coming software developers to further improve the invigilation process. It can reduce the amount of effort that has to be put in by the proctors and invigilators as only a single notification will be able to identify the wrong doers.

TECHNOLOGY USED

I have used the Keras which is an open source and a neural network library and is written in Python and it is capable of running on top of Tensorflow. It is also designed to enable fast experimentation as well as with Deep Neural Networks. I am using python for most of our work. The machine learning models, web scraping, APIs are all coded using python. The TensorFlow object detection API is one of the best framework for creating a deep learning network that can solves object detection problems and firebase is a good platform which is developed by Google for creating the mobile applications and web applications. It is a Backend-as-a-Service (Baas). I also used Node.js which is an open-sourced and back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code. At last I used Java which is a class-based and object-oriented programming language which is designed to have as few implementation dependencies as possible.

RESULTS

I have identified the best suitable machine learning algorithm for the detecting the malpractices in the examination and started the implementation as per our requirements. I have also designed the user interface layout for our android application for displaying the verified images to the invigilator and

developed the web interface the examination cell where they can control and filter the activities detected by machine learning algorithm.

CONCLUSION

It helps in preventing any sort of cheating measures that might be taken by the students and reinforce integrity and honesty in students. It help in understanding a sense of responsibility and seriousness regarding cheating. This system promote the idea of working hard and diligently and thus create a sense of responsibility in students' minds. It almost digitize the whole invigilation process and lend a helping hand to the examination conducting agencies and change the definition of success and hard work in the minds of students.

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