Term End Milestone-3 (Project -2)

Recognizing Images -Deep Learning

List Of expected Audience Questions and corresponding Answers

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**List Of expected Audience Questions and corresponding Answers**

1. In the Real world how the data science team is going to capture the required student biometric data

Answer: We have two ways to get student biometric preprocessed data

* Directly procure the required preprocessed students images data from third-party security vendors and their systems
* Do the data processing in-house and procure the required equipment & Software for capturing & process the student’s image data.

1. For procuring data from vendors or security agencies what ethical considerations do we need to take care of.

Answers:

* we are going to request data validity, original work certification, and copyright approval from vendors. Also need to make sure the vendor should be responsible to arrange the required government clearances.

1. What would be our revenue model?

Answer:

* we are going to provide installable software packages and their license to security scanner companies. And also having a plan to get some revenue from after-sales support from scanner companies.

1. The presented solution or model is meant for identifying few objects

How you are going to make it fit for students images ?

Answer:

* our developed solution can be used for any additional addon varieties of objects images (including students images too). However, before making it ready for students’ images we need to retrain our model with updated or new datasets.

1. How do you conclude the CNN model is the best fit?

Answer :

CNN model is having various inbuilt features to process the passed images automatically and create the classification. during our project poc, we have achieved an accuracy rate of 97%.

1. How accurate is your Model?

Answer:

* In this project, I have used clean and preprocessed data that contains equal no of sample counts for each variety. I believe for this project I have used only 12 different objects and have got the model max accuracy of 97%.

1. With the increase in counts of varieties of object, are you expecting any degradation in, accuracy?

Answer :

* Theoretically, we might get degradation inaccuracy, however, we are going to build and evaluate the models by using evolving multiple algorithms, which may result in a steady accuracy percentage (similar to current accuracy)

1. How the Model is designed to behave with unknown objects data.

Answer:

* At present, the model is not enough mature to identify the unknown gain variety data, but definitely, we are going to add the additional unknown classification variety in our training datasets.

1. please elaborate more on provided Recommendations:

Answer :

Modern software can recognize a large number of everyday objects, human faces, printed and handwritten text in images, and other entities. and we’ll continue witnessing how more and more businesses and organizations implement image recognition and other computer vision tasks to stand out from competitors and optimize operations. The developed image identification mode is best suited to recognize multiple individual objects and it is required to add more images in training datasets to make it more compatible with the real-time need

1. Do you have a recommendation for making the model prediction more consistent:

Answer:

* To increase the success rate in classification, more images can be obtained and it is thought that success rates can be increased by using morphological features as well as color and shape features.