Real time Automated ID Verification

Objective :

With identity theft and account takeover on the rise, it's increasingly difficult to trust that someone is who they claim to be online.
But with the help of Real time Automated ID verification system it is possible to detect fraudulent users by using a 3 step verification model as stated below.Id verification using AI

Requirements from user end :

1. Scanned College Id
2. Live Video of 2-3 seconds of the intended student

Software Requirements :

1. OCR
2. Face recognition CV model

Model :

- **Acquire**
- **Extract**
- **Verify**

Working :

The AEV (Acquire,Extract,Verify) model broadly works on 3 steps which include acquiring the document i.e. college Id by scanning it from the student's device.Extracting the useful information.And then finally verifying the student identity by using liveness detection and face detection.

The step by step approach is as follows:

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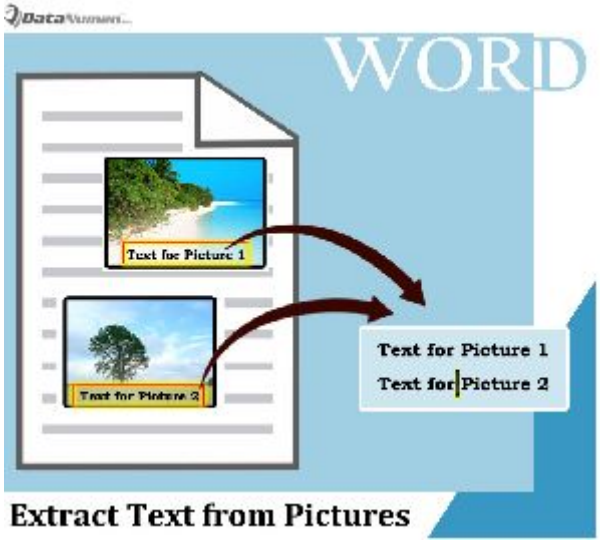
Step 1:

Acquire :

- Students can scan their College Id with smartphone or webcam.

Step 2 :

Extract :



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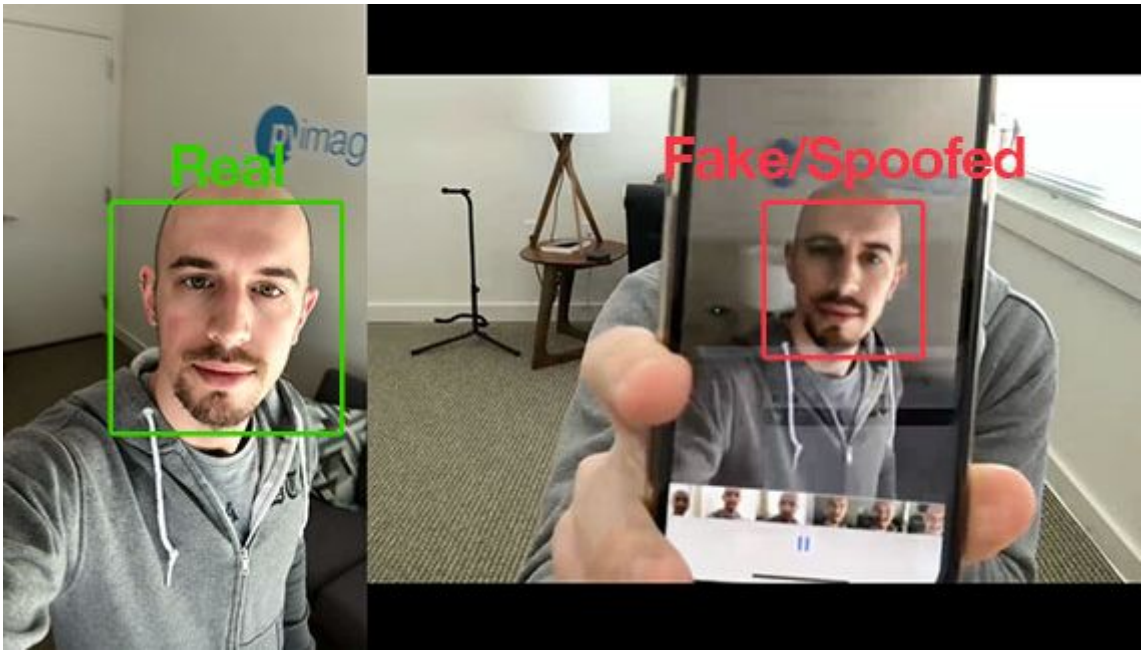
- Ocr to extract text from the college id, such as college name, student name,registration number etc.

- Tesseract 4.00 includes a new neural network subsystem configured as a text line recognizer.
- [OCR with Tesseract, OpenCV and Python]

Step 3 :

Verify :



- Verification using Liveness Detection using OpenCV
- Training a deep neural network capable of distinguishing between real versus fake face.
- Comparing the face on college Id and the first frame of live video to check the authenticity of the student.
- If the output of comparison is True. The student belongs to the same college.
- **Liveness Detection using OpenCV**