REVA HACK</> 2021

Elevator Pitch

TEAL

Anusha B Kandikere
Neeyal D
Sujnan MP

BLINKY

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Overview (What problem are you trying to solve)

Here we are using vision-based eye-blink monitoring systems to solve many possible problems like fatigue monitoring, human–computer interfacing and lie detection and many more.

Goals (How are you solving the problem stated)

Here in the project, we will use the python language along with the OpenCV library for the algorithm execution and image processing respectively to solve the problems faced during the process

Working Methodology (Summary on how your project is going to work/solve the problem stated)

First of all, our blink detector starts the process by performing an facial landmark detection to localize the eyes in a given frame from a video stream.

Once we have the facial landmarks for both eyes, we compute the eye aspect ratio for each eye, which gives us a singular value, relating the distances between the vertical eye landmark points to the distances between the horizontal landmark points.

Once we have the eye aspect ratio, we can threshold it to determine if a person is blinking — when the eyes are open and then will rapidly approach zero during a blink, then increase again as the eye opens

Specifications (Tech Stack Used - Hardware + Programming Languages)

We are detecting the blink of the human eye using the feature mappers knows as haar cascades.

The primary programming language used is PYTHON along with imported libraries such as Numpy and OpenCV .

Links and other Information:

● Attach the links to the Video Presentation/Pitch here, after uploading them on YouTube/Drive

● Link to your GitHub repo

● Other links (such as a link to your working website)

● Any other additional information that you might want to specify

Instructions:

1. Read all the Instructions carefully as not following them will impact your overall points.

2. Remove all the small braces and their contents in the heading before submission as it is for team's reference only

3. Goals should include what are you doing in your project which will help solve the stated problem

3. Don't include stuff like i5 processor or 16GB ram in hardware specs. If you're solving an IoT or AR/VR Problem then mention the hardware used.

4. Pitch should not take more than 1 minute to read. It is advised to read the pitch before submitting to make sure it's not taking more than a minute.

5. Pitch should be submitted on 12th November, 2021 by 3:00 PM or 15:00 HRS IST in Devfolio along with project link and video link. Any submission after that will be invalid and directly dequeued.

6. Remove the whole instructions part before submission as it is for team's reference only.

7. Make a Copy of this template or download it and edit. Don't request for access to edit the template itself. **(Goto File->Make a Copy** to make a copy or **File->Download->Microsoft Word** to download the template)