

How to Run the 'Cloud Face Detection' Demo

Prerequisites

1. This package uses Azure Cognitive Services for face detection and analysis. These services are free of charge, if you don't exceed a certain limit (30000 requests per month, 20 per minute, as of now).
2. In order to use the Cognitive Services for face detection and analysis, you need to subscribe for Face API. To get a subscription key, go to this page: <https://azure.microsoft.com/en-us/try/cognitive-services/> and press the big blue 'Get API Key'-button next to 'Face API'.
3. You will be asked to sign-in with your Microsoft and Azure accounts. This is the right moment to sign-up for Microsoft and Azure accounts, if you don't have those already.
4. Go to <https://portal.azure.com> On the Azure dashboard, press '+New' button, search and add the 'Face API'-cognitive service.
5. On the 'Face API' control panel, press the 'Show access keys' to see your face-api subscription keys.
6. Go back to the Azure dashboard. Press '+New' button, search and add the 'Emotion API'-cognitive service.
7. On the 'Emotion API' control panel, press the 'Show access keys' to see your emotion-api subscription keys.
8. Create an empty Unity project and import this package into it.

Face Detection Demo

1. Open Assets/CloudFaceDetection/DemoScenes/FaceDetectionDemo-scene.
2. Select the CloudFaceController-game object in Hierarchy. Copy the Face-API subscription key from Prerequisites-p.5 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component.
3. Copy the Emotion-API subscription key from Prerequisites-p.7 above to the 'Emotion Subscription Key'-setting of the CloudFaceManager-component.
4. Check, if the locations of Face-service and Emotion-service match the Azure service locations.
5. Run the scene. The upper left part of the screen shows the output of your machine's web-camera, if there is any. Click the web camera image, to take a photo for face detection and analysis.
6. Alternatively, you can click the lower left window, and select a jpeg-image for face detection and analysis.
7. The selected picture or camera photo will be displayed on the lower left window, along with the detected faces on it. All detected faces will be surrounded by rectangles with different colors.
8. Further information about the detected faces will be displayed in the same color on the right part of the screen. The information includes gender, age and smile-status for each detected face. If you have supplied emotion subscription key, the emotion status of each detected face will be shown as well.

How to Include Face Detection in Your Own Unity Project

1. Copy the Assets/CloudFaceDetection/CloudFaceScripts-folder from this package to your project.
2. Create an empty game object in your scene. Name it 'CloudFaceController'.
3. Add CloudFaceManager as component to the newly created CloudFaceController-object.
4. Copy the Face-API subscription key from Prerequisites-p.5 above to the 'Face Subscription Key'-setting of the CloudFaceManager-component. Do the same for the Emotion-API subscription key, if applicable.
5. You can copy UIFaceDetectionDemo.cs and related scripts from DemoScenes/Scripts-folder to a folder in your project and then use it as component in the scene, too. Don't forget to set its webcam source.

6. Alternatively, you can use the public API-functions of the CloudFaceManager-component in your scripts, just like the UIFaceDetectionDemo.cs-script in the demo scene does. Use its source as an example.

More Information, Support and Feedback

Web: <http://rfilkov.com/2016/01/25/cloud-face-detection/>

Facebook: <https://www.facebook.com/issbgcom>

Twitter: <https://twitter.com/roumenf>