FaceIDNN

Face recognition API

FaceIDNN by Gradiant brings you the easiest way of incorporating facial recognition into your business process with just a few lines of code.

Flexibility by design

- ✓ Suitable for Cloud and On-Premise Deployment
- ✓ Supports verification (1:1) and identification (1:N) operating modes
- ✓ Compatible with web and mobile platforms, supporting multiple use cases:
  - **Onboarding/KYC:** face verification against user's identity document photo. Compatible with passports, national IDs, driving licences, etc.
  - **Access control**, either 1:1 verification or Rank-N identification
  - **Time & Attendance**, either 1:1 verification or Rank-N identification
  - **ID documents duplicates** detection

Easy interpretation of recognition results

- ✓ One of the weaknesses of most facial recognition systems lies in the difficult interpretation of recognition results.
- ✓ We provide probability measures derived from the evaluation of FaceIDNN in highly representative databases

Presentation Attack Detection through FacePAD

- ✓ Through external Gradiant's FacePAD microservice
- ✓ Liveness detection mechanisms combine active and passive techniques for robust Presentation Attack Detection.

Functionalities

Applications and lists

User group management through applications and lists

Face detection

Multiple faces detection providing: bounding box, detection confidence, landmarks, and ISO quality measurements

Face enrol

From images or videos

Face verify

1:1 verification of an image or video against an enrolled user

Face identify

1:N matching of an image or video against a list of users, returning rank ordered results

Matching on-the-fly

The fastest path to face comparison with a single call and non-persistent data

Deployment

REST API with sample code for multiple platforms and languages

Code samples provided for Shell, HTTP, JavaScript, Node.js, Ruby, Python, Java, and Go

SaaS / Dedicated Cloud / On-Premise Deployment

SDK available on-demand *

Performance

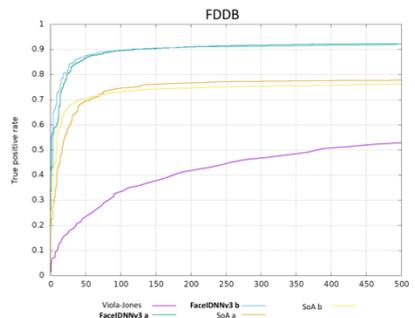## Face Recognition performance on NIST databases

NIST IJB-A

System	FNMR@FMR		
	EER	10^{-2}	10^{-3}
FaceIDNNv3	0.028	0.042	0.085
dlib	0.097	0.281	0.508

NIST IJB-B

System	FNMR@FMR			
	EER	10^{-2}	10^{-3}	10^{-4}
FaceIDNNv3	0.027	0.040	0.085	0.162
dlib	0.067	0.165	0.331	0.535

Face Detection Performance on FDDB

**ID Document vs Selfie performance
on low resolution webcam database**

	FNMR@FMR		
	EER	10^{-2}	10^{-3}
FaceIDNNv3	0.031	0.067	0.209

Face Template Size: 1KB

Attending your needs

Adaptation to your scenario

We are aware of the challenges involved when deploying facial recognition systems in real settings and the difficulties due to variability in capture processes, scenarios, etc. For this reason, we offer the possibility of specific system training for your own data and performance optimization for your use case

Latest releases

All our customers benefit from our continuous improvements in facial recognition, as we make available the latest releases through the API.