

AI security with biometric facial recognition

SECURITY

Face recognition system that uses biometry to match facial features on photo or video within several seconds. With the purpose of identification or authentication, the recognition technology compares obtained data with the existing database to find the match.

#Python

#Tensorflow

#Javascript

#HTML5



Business Case

For security reasons access to the building and separate rooms is granted only to certain people. Biometry-based recognition allows organizing a system of quick access that does not require additional actions from visitors. The system also enables visitors' location control.

TECHNICAL IMPLEMENTATION

Solution & Functionality

The biometric system is a client-server application and works in four steps:

-  Photography
-  Saving
-  Matching
-  Acceptance

When uploading a photo (video), general information about a person (name, surname, passport data) is entered into the database. Then the face is analyzed and a unique identifier is generated. To generate the identifier the MobileNetv3 architecture based neural network trained on 200,000 photos is used. During each verification, the generated identifier is compared with the stored identifier. Then the system either confirms or denies the access right.