/FotoFaces

Licenciatura em Engenharia Informática
Projeto de Informática
Grupo 01

/Team


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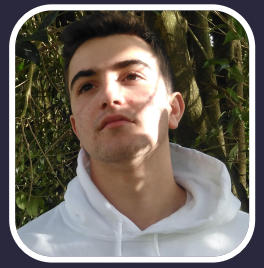
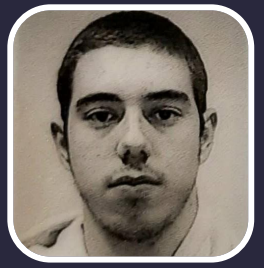

Filipe Gonçalves


João Borges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/01 → /Context

The University has a system for updating photos.

Our project resides in identifying people in them and adjusting those photos in order to have a high quality and an easy association between a person’s name and their face.

We strive to invalidate photos which do not respect some standards: wearing glasses, using a hat, tilted head, etc. .

/02 → /Problem

- Send photo to an API
- It will respond with the characteristics of the photo
- The app will check if the characteristics are valid
- Updates the photo to the database

/03 → /Goals

- Facial Recognition
- Fix face orientation
- Analyse photo quality
- Blur background
- Recognize invalid objects, such as hats and sunglasses
- Crop face accordingly
- Implement deep learning

/04 → /Risks

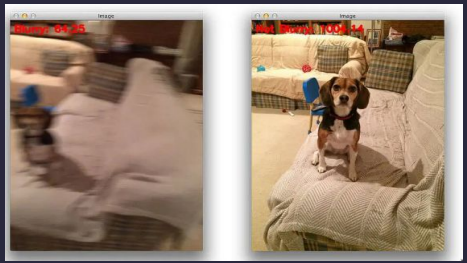
- Modularization Problems
- Performance and Efficiency of the algorithms
- Bad implementation of deep learning
- Biased or insufficient training set

/05 → /Expected_Results

- Fully functional mobile app with FotoFaces integration
- Reliable Facial Recognition
- Robust backend capable of scaling

/06 → /Related_Work

Blur detection with OpenCV



Liveness detection

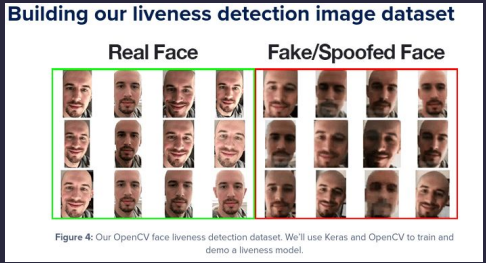
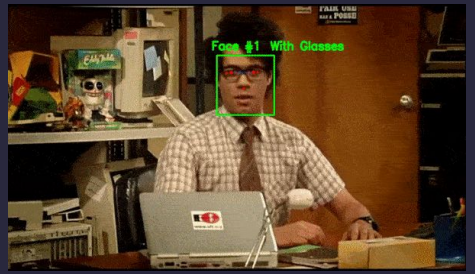
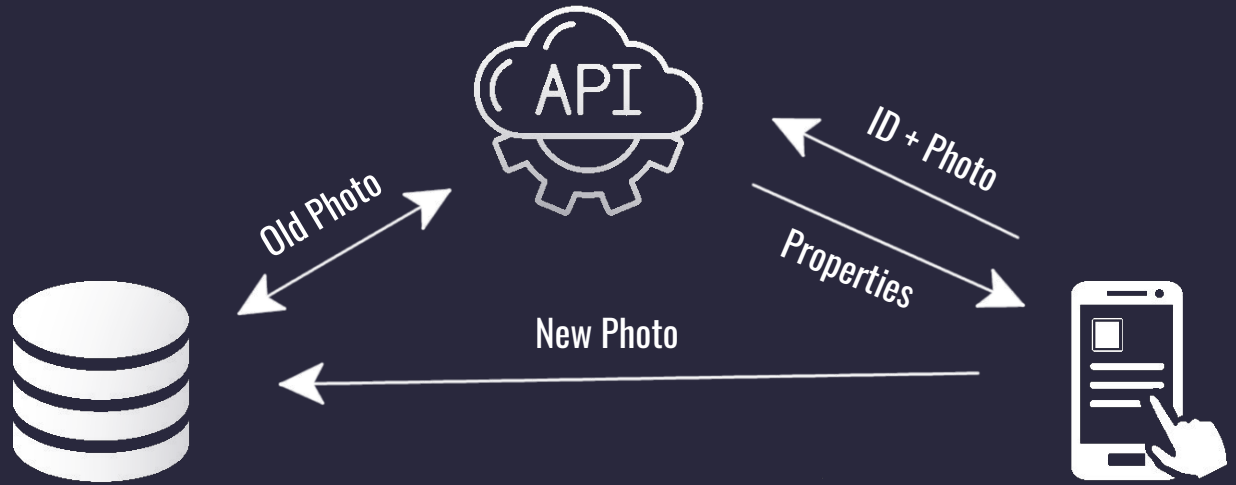


Figure 4: Our OpenCV face liveness detection dataset. We'll use Keras and OpenCV to train and demo a liveness model.

Realtime glasses detection



/07 → /Architecture



/08 → /Roles

/Filipe	/Gonçalo	/João	/Pedro	/Vicente
Team Manager	DevOps	Lead Developer	Quality Team	Architect
Communications	Backend	Frontend	Backend	Infrastructure

/09 → /Tasks

/Filipe	/Gonçalo	/João	/Pedro	/Vicente
Organise the team and generate backlog Integrate communication service with the backend and frontend	Operate and do maintenance for the project repository Integrate with the communications logic	Design the aesthetic of the project Create the required communication services with the backend	Manage software quality among all algorithms Develop the API and its endpoints	Design the Architecture of the project Maintain and upgrade the infrastructure when needed

/10 → /Communication_Plan

GitHub

Backlog management

Website

DISCORD

Development Community

/11 → /Development_Tools

Code Repository

App Builder

Communication

/12 → /Project_Calendar