



# /FotoFaces

Licenciatura em Engenharia Informática  
Projeto de Informática  
Grupo 01





# /Team



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# /01 → /Context

Being able to identify someone by their face is globally used in normal day life, but when we try and categorise people in a certain company, or enterprise, it is not always easy. Inserting a photo anywhere is not the main problem, but assuring that when updating it with a new photo, it's valid and usable can get tricky. Therefore, the search for a way to upload new photos and validate it with new/better algorithms that prevent any backlash is highly requested.

# /02 → /Problem



Our project will consist of a mobile application that sends a photo to an API which will respond with characteristics of that photo (Ex.: Has a face, has glasses...) and, according to the response message, the mobile app will check if it's valid and update it to the database.

# /03 → /Goals



- Facial Recognition functionalities
- Improve existing algorithms in FotoFaces
- Add algorithms to FotoFaces to improve the reliability of the Facial Recognition
- Implement deep learning to make the FotoFaces algorithms more reliable



# /04 → /Risks

- Modularization Problems
- Performance and Efficiency of the algorithms
- Bad implementation of deep learning



# /05 → /Expected\_Results

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

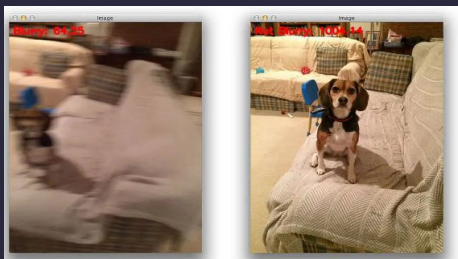


# /06



# /Related\_Work

## Blur detection with OpenCV



## Liveness detection

### Building our liveness detection image dataset

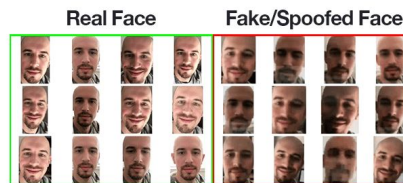
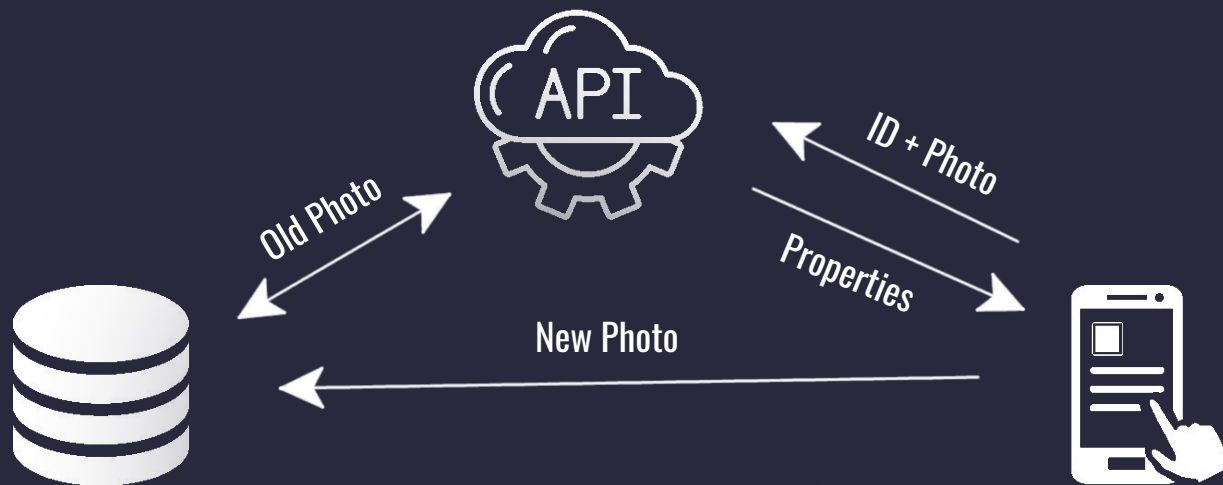


Figure 4: Our OpenCV face liveness detection dataset. We'll use Keras and OpenCV to train and demo a liveness model.

## Realtime glasses detection



# /07 → /Architecture



# /08 → /Roles

/Filipe	/Gonçalo	/João	/Pedro	/Vicente
Team Manager	DevOps	FrontEnd Quality Team	Quality Manager	Architect

# /09 → /Tasks

<b>/Filipe</b>	<b>/Gonçalo</b>	<b>/João</b>	<b>/Pedro</b>	<b>/Vicente</b>
<b>Organise the team and generate backlog</b>	<b>Operate and do maintenance for the project repository</b>	<b>Design the aesthetic of the project</b>	<b>Manage software quality among all algorithms</b>	<b>Design the Architecture of the project</b>
<b>Maintain a good project documentation for posteriori</b>	<b>Make sure the project runs everywhere</b>	<b>Manage software quality among all algorithms</b>	<b>Organise the tasks for the Quality Team</b>	<b>Maintain and upgrade the architecture when needed</b>
<b>Developer</b>	<b>Developer</b>	<b>Developer</b>	<b>Developer</b>	<b>Developer</b>

# /10 → /Communication\_Plan



Backlog  
management



Website



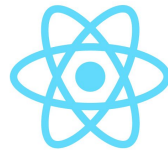
Development  
Community

**/11**

# /Development\_Tools



Code Repository



App Builder



Communication



# /12 → /Project\_Calendar

