**ML PROJECT - Glasses Recognition**

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**Brief**:

Automatic glasses detection on real face images is a challenging problem due to different appearance variations. Nevertheless, glasses detection on face images has not been thoroughly investigated. Firstly, images are preprocessed and normalized in order to deal with scale and rotation. Secondly, eye glasses region is detected considering that the nosepiece of the glasses is usually placed at the same level as the center of the eyes in both height and width. Thirdly, Robust Local Binary Pattern is built to describe the eyes region, and finally, support vector machine is used to classify the LBP features.

**Incentives**:

* At lenskart and various other companies selling sunglasses, to provide an AR view.
* Automated Immigration centers at airports.
* Face unlock features in phones.

**Objectives**:

* Identify and classify images that have people wearing glasses and people not wearing glasses
* Use and try different machine learning algorithms for the same to get the most accurate results.
* In the field of Image Analysis, research on identification of facial feature detection is one of the most prominent ones.
* Classification of the image with glasses or without glasses is the primary task.