

CS5330 - Pattern Recogn & Comput Vision

Final Project Proposal

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Project Title: Face detection and filter application

Description:

The project will be able to detect the human face and apply some filters or other operations to the detected faces.

It will be a facial recognition app based on computer vision. In this app, we mainly use live footage as data input, and users will be able to use various filters to enrich their videos.

During the live broadcast, we will analyze the screen, extract possible facial features, identify the user's face and its expressions, and extract the user's facial data. With this data, we can match these features to our pre-designed filters and present users with rich visual effects.

Possible extension:

- Graphical User Interface for different functionalities.
- Facial match on celebrities or anime characters by training the network with a given dataset.
- Facial swap filter: detect two sets of facial features from given input, swap their face based on their facial features.