

University of West Florida

CAP 6655 Computer Vision

Project 3 Proposal

This project aims to develop a computer vision algorithm which can perform emotion recognition of faces in an image or a video. The purpose is to build a *Facial Expression Recognition* algorithm using images of people's faces (taken from public datasets found online). In particular, the algorithm should surround each face with a bounding box, label it with the age (or a range of ages) predicted and with the name of the emotion detected (i.e. happy, sad, angry etc). Also, it should work both for static images and videos.

In this second project I'm going to test different approaches to emotion recognition proposed in literature and to try modifying them to achieve better performance. The performance of the models tested will be then compared trying to find the best one for this final part of my project.

The algorithms will be implemented in Python, using the most popular libraries such as OpenCV, TensorFlow etc.