IMAGE PROCESSING (GENDER AND AGE PREDICTOR)

Software Engineering

Sohail Asghar TL
153187
Muhammad Abdullah
153181
Muhammad Sohail
153200
Muhammad Omer Affan
153157

IMAGE PROCESSING

GENDER AND AGE PREDICTION VIA DEEP LEARNING

October 8, 2017

OVERVIEW

1. Introduction

The purpose of this project is to produce a software that predicts the gender of a person and his/her age. By using different algorithms, procedures and techniques, the software shall produce stated results through image processing via deep learning.

2. Clear Statement of the problem

It's often seen on social networking platforms/resumes/curriculum-vitals have people lying about their age. Prediction of gender and age of a person from an image, shall help correct depiction of age of the person, whose image is being processed.

3. Project Scope & Objective

The project aims to implement software capable to analyze features and details of human faces and predict gender, plus age group of a person, in a particular image. This image could be a frame from a live video at a particular moment/instant, or just a photo of someone.

Getting to know the age and gender of a person would help in analysis of data, perhaps calculate the ratio of genders by successfully analyzing a crowd of people and Analyzing the surveys and feedbacks for gender and age group ratios.

4. Related Work

The new system must include the following:

- 2D to 3D image prediction
- Security implementation for mobile technology

- Real life picture to animation conversion

5. Project Plan / Schedule

The project would follow the procedure of incremental process model, with detailed documentation of each and every step. Each stage of the model will be explicitly documented on ‘release bases.

6. Motivation

The possibilities in future to progress object analysis to a higher and more sophisticated level. Imagine a scene, discrete objects analysed, in a live broadcast, to minimize acts of terrorism.
Now imagine another scene, a jewellery store being robbed by some guys, with pistols, if only a cctv camera was intelligent enough to contact the police automatically.

7. Requirements

The new system must include the following:

- Python IDE
- OpenCV (optional)
- NumPy (optional)
- Video Camera (optional)