**BDA -2102**

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**Problem or idea description and Background information on the problem or idea**

“Gender and Age Detection”- This Gender and Age Detection Project utilizes machine learning algorithms to detect the gender and age of people based on their facial features. The project aims to develop an AI-driven tool that can accurately identify the gender and age of a person from an image or video. The tool will employ state-of-the-art computer vision and deep learning algorithms to analyze facial features such as shape, size, color, and texture. The output of the tool will be the gender and age of the person with a certain degree of accuracy. This tool can be used in various applications such as security surveillance, automated customer segmentation, marketing, and age-sensitive product design.

The challenge with this project is to accurately identify the gender and age of an individual from a photo or video. This can be difficult because a person's physical features may not always clearly identify their gender or age. In some cases, it may be hard to tell from a single image whether an individual is male or female, or whether they are a child, young adult, or an adult. Additionally, there can be a variety of skin tones, hair styles, and clothing styles that may make it difficult to accurately identify a person's gender or age.

**Available solutions with links**

1. Microsoft Cognitive Services: Microsoft Cognitive Services is a set of APIs, SDKs, and services available to developers to make their applications more intelligent, engaging, and discoverable. It includes a Face API which provides face detection, recognition, and analysis. It can also be used to detect age and gender. https://azure.microsoft.com/en-us/services/cognitive-services/face/

2. Amazon Rekognition: Amazon Rekognition is an image and video analysis service that can be used to detect and recognize faces, as well as identify age and gender. <https://aws.amazon.com/rekognition/>

**Tech stack that will be used(we are not sure yet)**

**Back-End: - Python**

**Front-End: - HTML - CSS - JavaScript –**

**Bootstrap Libraries/Frameworks: - OpenCV - Scikit-learn - TensorFlow - PyTorch - Keras**

* **Structure**
  + **Problem or idea description**
  + **Background information on the problem or idea**
  + **Available solutions with links**
  + **How to get the data?**
  + **Brief description of your solution**
  + **Tech stack that will be used**
  + **Any information you find necessary**
* **Not necessary to write many words, write what is only important.**
* **Submit in pdf format.**

**PGender and Age Detection**