Gender and Age Prediction Model

Important modules imported:

1. pandas:

pandas is a Python package that provides fast, flexible, and expressive data structures designed to make working with "relational" or "labeled" data both easy and intuitive. It aims to be the fundamental high-level building block for doing practical, real world data analysis in Python.

2. numpy:

numpy is a library for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with a large collection of high-level mathematical functions to operate on these arrays.

3. os:

The OS module in Python provides functions for creating and removing a directory (folder), fetching its contents, changing and identifying the current directory, etc.

4. matplotlib.pyplot:

matplotlib.pyplot is a state-based interface to matplotlib. It provides an implicit, MATLAB-like, way of plotting. It also opens figures on your screen, and acts as the figure GUI manager

5. seaborn:

Python Seaborn library is a widely popular data visualization library that is commonly used for data science and machine learning tasks. You build it on top of the matplotlib data visualization library and can perform exploratory analysis. You can create interactive plots to answer questions about your data.

6. warnings:

Warnings are provided to warn the developer of situations that aren't necessarily exceptions. Usually, a warning occurs when there is some obsolete of certain programming elements, such as keyword, function or class, etc.

7. tqdm:

Tqdm is a Python library used to display smart progress bars that show the progress of your Python code execution. This library can also be used to see the progress of a machine learning model while training the model on a very large data set.

8. tensorflow:

TensorFlow provides a collection of workflows to develop and train models using Python or JavaScript, and to easily deploy in the cloud, on-prem, in the browser, or on-device no matter what language you use.

9. Keras:

Keras is a deep learning API written in Python, running on top of the machine learning platform TensorFlow . It was developed with a focus on enabling fast experimentation. Keras acts as an interface for the TensorFlow library.

CNN (Convolution Neural Network):

Convolution Neural Network (CNN) are particularly useful for spatial data analysis, image recognition, computer vision, natural language processing, signal processing and variety of other different purposes.

CNNs make all of this magic happen by taking a set of input and passing it on to one or more of following main hidden layers in a network to generate an output.

- Convolution Layers
- Pooling Layers
- Fully Connected Layers