Individual Project Report
Fake Face Detection: FaceAuth

Group-01
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DATS-6303
Deep-Learning
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December 8, 2023

1 Project Overview

In the era of advanced artificial intelligence, the ability to discern between human-generated and AI- generated images has become crucial, this is especially true for AI generated human faces. This project aims to develop a image classification model capable of distinguishing between faces of real humans and those generated by AI.
Additionally, we hope to develop an auxiliary classification model that will be extended to identify the specific AI architecture responsible for generating the image, including state-of-the-art models like DALL-E, Imagen, and others.

2 Contributions

We worked as a team Apart from my significant participation in the group discussions and decision making process the following are my direct contributions to the project:

- Paper Reviews
  I along with my team members undertook the task of literature review in order to help us gain an understadning about the best practices, state of the art models, and general information regarding the problem statement.
- CNN based models
  I was responsible for the DenseNet models implemented, which included the training, testing, etc
- Training and Testing Scripts
  I created a general training script which I adapted from the training script provided in Deep Learning. Features such as the ability to continue training, TorchMetrics and an intuitive parser were implemented for cross compatibility with other models.
- The App
  I was responsible for creating the StreamLit app.

For more details please refer the Group Report.
Percentage of code used from Internet is about 20% but this does not include the training script I adapted from the one provided in the Deep Learning course