ID CARD GENUINENESS/AUTHENTICITY MODEL OF LESSERSTRESS

Due to the inability of management of institutions to provide enough on-campus accommodation for students, a larger proportion of them are made to seek solace in off-campus housing for their accommodation need.

Results showed that students are faced with a number of challenges such as not being able to get quick access to house rentage, high cost of rent, delay in getting to and fro school, insecurity, FAKE AGENTS, among others.

The team is one of:

- ✓ Front-end and Back-end developer (React/Django)
- ✓ Front-end developer (React)
- ✓ UI/UX designer
- ✓ Machine & Deep Learning Expert.

My role on solving the problem space as the Machine & Deep Learning person is to develop a working ML -- AI model that checks if the identity of the user is valid or not. If it is, access would be granted to use the service of the app.

The allowed ID cards are Nigeria National Identity card or Voter's card

To check for genuineness between image dataset(s) and one provided by user, it was important for me to extract the feature vectors of the image; That way, it would be safe to assume that larger percentage of the features must be present in the one from user to train the model to return it as a genuine one, and if the features are fewer or of low match, then the model is trained to understand that the image – ID card is not genuine.

Thereafter extracting the feature vectors, I compared the feature vectors of the test image dataset with one from user with "cosine_similarity" function and the percentage similarity with any of the image dataset determines how genuine it is. For the records, I set the percentage genuineness as **75%** (excellent score) to being valid and lesser than that, invalid.

In the other code file, I have it running as extracting the entities of the ID card, converting to Dictionary form - this datatype would be exposed to an API of Nigeria National ID card details for verification.