**Authenticator App**

**Keywords:** GCR, Flask, Container, SageMaker

Authenticator App is a cloud-based application that recognizes team members and assigns appropriate rights of access (or identifies an unauthorized attempt and declines the access).

The app process is described below:

1). A team lead uploads videos of each team member along with the names and access rights: for example, Julia Oblasova – data science manager. All videos are upload to the Flask App.

2). Using Residual Networks model, the app splits each video to single frames and identifies whether a frame contains a picture. If it’s the case, this photo will be used to train the model.

3). The collection of cropped images with faces is converted to embeddings. Steps 2). and 3). are completed in GCR.

4). The result of preprocessing step is a pickle object with image embeddings. The pickle object is sent to SageMaker using an open endpoint.

5). After SageMaker receives a pickle object, it is used to train SVM model.

6). After the training process is completed, the model is ready for the action.

7). For the testing step, a user submits a photo and SVM predicts who it on the photo. If the probability of recognition is 90% or above, a user on a photo will be granted the access rights.

Note: a user may connect to SageMaker directly through the console if there is a need to access a model directly.

Thank you for using Authenticator!

A screenshot of a social media post

Description automatically generated