Group A3 - Big Brother: Third Milestone

Group A3

TU Berlin

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Table of contents

Logic

Subsection 1

Video training (eduVid)

Motivation & Overview

- Step 1: Summary of the issues of recorded classes in the form of indexes.
- Step 2: Informed learning.
- Step 3: Conveniently switch between specific topics on which the student wants to focus more or repeat.

Python modules

- OpenCV
- Tesseract
- The Natural Language Toolkit (NLTK)
- Rapid Automatic Keyword Extraction (RAKE)
- VLC

Pipeline process

1. Script extraction
2. Summarization
3. Extraction of keywords
4. Recognizing the change of presentation slides and recognizing the content on them using OCR
5. If keyword from script = keyword from presentation - index
6. Access to relevant segments by demand
7. Use a knowledge graph to make the program work more efficiently - (keywords are not always used when talking about a given topic)

Demo

We are going to demonstrate the following functionalities:

- video footage processing (from presentation till text)
- video player

Subsection 2

Face and Gesture recognition

Frontend

Progress report

- Meet the teams: Added names of team members
- Login camera:
    - countdown to take picture
    - image download
- Bug fixes
- configure GPU server

TODOs

- Getting docker container to work (already started)
- Face recognition $\rightarrow$ compare live image with backend image
- Adding pictures to our team
- Interface for eduVid-team

Database & Benchmarking

Subsection 1

Database

Progress report

- Fixed potential problems with concurrency
- Implement some further tests
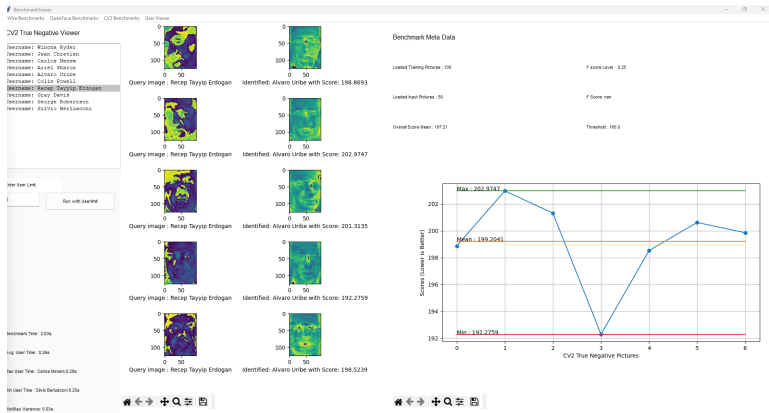- Implement user encoding functions
- Inserted more user data into database

TODOs

- calculate encodings for user data in database
- implement requests regarding features of eduVid group

Subsection 2

Benchmarking

Progress

- Clean up
- Bug fixes
- Change deprecated methods

Short demonstration

TODOs

- fix bug with f-scores
- extend benchmarking for implementation of logic group
- maybe: use more/different test and training data

Any Questions?