

CO FOUNDER FEMALEFIT

Personalized and self-adapting training plans based on existing youtube fitness videos.

PROBLEM

There are millions of youtube fitness videos with a high degree of variety with respect to length, fitness instructor, trained parts of the body, difficulty, etc. When a user wants to find a personally suited workout, he/she possibly has to zip through many videos or repeat a video which already proved to be good. Moreover, amateurs often fail to select a sequence of videos which is consistent with personal goals and knowledge about biological processes induced by the workout.

SOLUTION

A recommender system for youtube sport videos implementing an artificial sports trainer which personalizes video suggestions by incorporating a user's history and fitness objectives. It allows the user to filter for video feature criteria, such as workout duration and difficulty.

The suggested videos are consistent with knowledge about biochemical processes, maximizing the yield of the user's workout.

TECHNICAL IMPLEMENTATION IDEAS

- Create a database with sport videos on youtube and collect/evaluate features about them
- Identify and evaluate importance of factors which correlate with the number of views of the videos
- Create a recommender system, which can incorporate user filters

such as time, video difficulty, etc. and maximizes training output

- Make a study with participants exercising according to the recommendations, further train the model and incorporate their feedback

DATA BASED FEATURES

- Duration of video
- instructor (Female/Male, age, channel)
- Difficulty
- Measure of cardio and strength intensity
- Focus of Body parts which are trained
- Likes so far/time published
- Producer
- Time clock included in video
- Repeated exercises (e.g. 3 times 5 exercises) or complete program with varying tasks

USER BASED FEATURES

- Optional test for strength/cardio skills before first video is done —> current training status
- Optional questions identifying goal of user (e.g. strength, weight loss)
- History of videos
- How lately have videos been watched? (e.g. yesterday: abs training —> recommendation tomorrow does not include abs training)
- feedback/evaluation of every historically watched videos wrt difficulty, like/dislike