Text to Motion Database

Test Report

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Contents

Revision History

Date	Version	Notes
March 14, 2017	0.0	File created

1 List of Tables

tables for a specific tests have been removed to improve readability

2 Introduction

2.1 Purpose of Document

This document summarizes the testing and the findings of the tests for the Text to Motion project. This documentuses the implementation outlined in the test plan.

2.2 Scope of Testing

2.3 Organization

Section 1 is our introduction and introduces this report. Section 2 describes the test cases as outlined in our test plan and their results. Section 4 describes traceability to the requirements. Section 4 describes what changes have been made in response to our testing.

Testing structure

Automated Testing

generating inputs

Manual Testing

3 Preliminary Testing

3.1 Proof of Concept

3.1.1 Functional website for pose estimation

Description

This is a baseline test to make sure the website is running , appears in a web browser when its url is entered and that pictures can be uploaded and viewed on the site.

Put the proper url into the browser and click on each of the links to make sure that no error occurs. Meaning that there are no excessive wait times and that the broswer does not crash. Make sure there are poses shown on the site.

Results

Test	**Result**
TextToMotion link	Pass
Register Link	Pass
Sign up Link	Pass
Poses shown when Text-ToMotion is clicked	Pass
Search Link clicked	Pass
About Link clicked	Pass
ImagePoseDraw link clicked	Pass

3.1.2 Databse Website Pairing

Description

In this section we test to see if the files: TomBrady.jpg, AverageGirl.jpg and AverageGuy.jpg can be accessed from the website. To do this the url is entered in the

browser, click on the TextToMotion link and select the file we would like to select to see if it is displayed in the browser.

Results

Test	Result
Tom Brady	Pass
Average Girl	Pass
Average Guy	Pass

3.1.3 Updating the database

Description

The database allows users to upload images to the database through the website interface. A test is considered a pass if an image or video can be uploaded, then accessed by user through the web interface. Again we test this on the same files we have used in the previous tests: TomBrady.jpg, AverageGirl.jpg and AverageGuy.jpg.

Results

Test	Result
Tom Brady	Pass
Average Girl	Pass
Average Guy	Pass

3.1.4 Running Pose Estimation

Description

Once a user uploads an image they should be able to run pose estimation on an uploaded image. A test is considered a pass if an image or video can be uploaded, have pose estimation run on it, and have the result be visible to the user.

Results

Test	Result
Tom Brady	Pass
Average Girl	Pass
Average Guy	Pass

3.1.5 Search by Tag or Name

Description

The database has the ability to search through the database using a video tag or the video name. A test is considered a pass if we can search the dataase using a tag or name and the correct video appears.

Results

Test	**Result**
Tom Brady	Pass
Average Girl	Pass
Average Guy	Pass

All of these tests passed. It was possible to search through the database and retrieve entries by tag and video name.

3.2 Solution Constraints Testing

3.2.1 Deep Learning Methods Test

Description

Our Supervisor Dr. Taylor will check if the Deep Learning Methods used are modern and up-to-date.

Results

Test	**Result**

3.2.2 Standard Data Format Test

Description

An automated test that checks if the human pose data used for the project is standard and compatible with existing software libraries.

Input Data

Input	Description

Results

3.2.3 Linux Platform Build and Run Test

Description

an automated test that confirms that the pose estimation software can be built correctly on a Linux platform.

Input Data

Input	Description

Results

3.2.4 Python API Hook Testing

Description

An automated test that confirms the major interfaces for the project have working python hooks.

Input Data

Input	Description

Results

4 Functional Requirements

4.1 Supported Video Encodings Test

4.1.1 Description

Tests whether the ReadFrames API is able to decode MP4, MP2 and AAC video files.

4.1.2 Input Data

Input	Description

4.1.3 Results

4.2 Frame Reading Timestamp Accuracy Test

4.2.1 Description

Tests whether the timestamps on the frames returned by the ReadFrames API match their temporal position in the original video stream.

4.2.2 Input Data

Input	Description

4.2.3 Results

4.3 Human Pose Estimation Data Quality Test

4.3.1 Description

Test to ensure the data quality produced by the human pose estimator component. A set of Charades videos will be processed by the human pose estimator, and skeleton animations corresponding to the generated human pose data will be created (this is a scoped part of the software pipeline). A double-blind test will be ran, where testers will be shown random mixed sets of the skeleton animations produced by McMaster Text to Motion, together with skeletons from actual motion capture data coming from

CMUs motion capture lab. Testers will indicate whether they think the motion capture data came from actual motion capture, or from the pose estimation software.

4.3.2 Results

Test	Result

4.4 Database Output Full Range Coverage Test

4.4.1 Description

Tests to be sure all entries in the database can be successfully searched for.

4.4.2 Input Data

Input	Description

4.4.3 Results

4.5 Databse No False Positives

4.5.1 Description

Tests that the database search does not return any false positives, such as videos or images that do not contains searched words.

4.5.2 Input Data

Input	Description

4.5.3 Results

4.6 Full Text Search Order by Relevance Test

4.6.1 Description

4.6.2 Input Data

Input	Description

4.6.3 Results

5 Non-Functional Requirements

5.1 Look and Feel Requirements

5.1.1 Description

A test to see if the color scheme of the website is visually appealing. To determine this we ask users to rank the color scheme on a scale of 1 out of 10. An average of 6 will be enough to satisfy this requirement.

5.1.2 Results

User	**Rank**
Average	
Pass?	

5.2 Style Requirements

5.3 Description

The website interface should be minimal and should inform the user of valid actions through visual means. Users will rate the design on a scale of 1 to 10. An average of 5 is required for a pass.

Results

User	**Rank**
Average	
Pass?	

5.4 Ease of Use Requirements

5.4.1 Upload/Download

Description

Through the web interface a user should be able to upload then download a picture within 30 seconds

Results

Test	Time	Result

5.4.2 Text Box Functionality

Description

The user should be able to input a descriptive word or phrase into a text-box from within the web interface in order to search for a video.

Results

Test	Time	Result

5.5 Learning Requirements

5.5.1 Usability Tests

Description

The user should be able to interact with the website without prior knowledge. They will given a minute to explore the website. After that time they are asked to rate the usability on a scale of 1 to 10. An average of 6 is required for a pass.

Results

User	Rank
Average	
Pass?	

5.5.2 Text to Motion Training

Description

The user should be able to interact with the website without prior knowledge. They will given a minute to explore the website. After that time they are asked to rate the usability on a scale of 1 to 10. An average of 6 is required for a pass.

Results

User	**Rank**
Average	
Pass?	

6 Other Relavent Testing

6.1 Presicion and Accuracy

6.2 Robustness/Fault Tolerance

6.3 Capacity Requirements

6.4

7 Changes After testing