

CS5245 Vision and Graphics for Special Effects

Project Progress Report

Title

Super Star

Group Members

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Special Effect

Dynamic object replacement in a continuous dynamic scene.

Progress

1. Initial raw video footage has been captured.
2. Raw Footage edited for suitable video sequence.
3. A pilot test on algorithm has been done. This is done using matlab and segmentation algorithm.

Review of Pilot Video

1. Interaction between the two same characters is mismatched. Actions of the actor needs to be more précised and timed such that during video matching and stitching the actions by the same characters are more natural.
2. Shirt worn by the actor (maroon) is too close to the background, which increase difficulty in auto segmentation. Suggested solution is for the actor to wear a shirt with a colour that contrasts the background greater.
3. Position of the camera to be shifted such that video capture may be able to capture more frames which may be used to automatically stitch the two replicated characters of the two players simultaneously.

Method

1. The motion of the replaced person in the first video sequence is tracked and replaced with the corresponding background.
2. The person in the second video sequence is tracked and distilled from the frames.
3. The position of the racquet is tracked in both video frames so that the person in step

two can be put into the right position in the video from step one.

4. The moving badminton ball is tracked and replaced in some frames to guarantee that the whole scene seems seamless.

Schedule

March 8	Project progress report.
March 9	Re-shoot the video
March 27	The demo version of output video.
March 29	Submit Project progress update.
April 3	Increasing the quality of output video.
April 5	Finalized Version of video out.
April 12	Project presentation