Description

In this project, an interactive face tracking and augmentation system should be developed that works on mobile devices and enables users to create and edit 3D scenes around the user's face. Users should be able to add glasses, hats, etc. to a pre-recorded face to create a scene that can be shared with others. The recipient of such a scene can see himself immersed in the scene and wearing the glasses, hats, etc. that are part of it.

First, the student should use an existing face tracking library and optimize it for mobile operation. Next, an image-based model of the face/head should be constructed and rendered using a custom shader program. Finally, a defined set of scene creation and rendering methods should be implemented to result in a working demo at the end of the project period.

This project is supervised and supported by Reactive Reality (www.reactivereality.com), a spin-off of the ICG/TUG that is focused on mobile AR around the user's body.

Read more:

› Face detection and tracking
› Image-based modeling & rendering
› Virtual try-on

Supervisors: Philipp Grasmug
             Stefan Hauswiesner
             Dieter Schmalstieg

Project period: July - Sept. 2017

Compensation: approx. 900 EUR / month

Contact: hauswiesner@reactivereality.com