AALBORG UNIVERSITET
STUDENTERRAPPORT

Medialogy Aalborg
Niels Jernes Vej 14 - 9220
Aalborg Øst
http://www.medialogi-

Title: Magic Canvas

Theme: Visual Computing

Project period: September-December 2012

Project group: MTA 12338

Participants:

Gustav Dahl

Johannes Møjen

Maximilian Müller

Marco Winther

Marta Botella

Simon Jakobsen

Supervisors:

Thomas B. Moeslund
Andreas Møgelmose

Abstract:

The theme for this project is Visual Computing. The group has been in collaboration with Hjørring Library in developing an installation called Magic Canvas. The goals are to make an entertaining installation that can be enjoyed by people of all ages. The Magic Canvas utilizes an infrared webcam to capture video of people casually passing by, displaying them on a big canvas as a Christmas-related character. To make the camera get a clear contrast, infrared LED strips are placed near the canvas. The software is mainly written in C++, using the OpenCV library to extract video information. The Unity game engine is then used for visualization. To detect people with the camera, various image processing techniques have been used, such as thresholding, background subtraction, region of interest and BLOB analysis. The program is working without any physical devices, and it does not require any external maintenance. The program ran throughout December 2012.

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