

Project Documentation

Interactive Lighting Detector

written by

Vera Brockmeyer (Matrikelnr. 11077082)
Laura Anger (Matrikelnr. 11086356)

Image Processing in SS 2017

Supervisor:

Prof. Dr. Dietmar Kunz
Institute for Media- and Phototechnology

Contents

1	Introduction	3
1.1	Motivation	3
1.2	Usage Context	3
1.3	Project Goal	3
2	State of the Art	4
2.1	Image Forensic	4
2.2	Light Vectors	4
3	Materials	5
3.1	Hardware	5
3.2	Software	5
4	System	6
4.1	Lighting Model	6
4.2	Different Approaches	6
4.2.1	1. Approach: One Lightvector	6
4.2.2	2. Approach: Averaging Lightvectors	6
4.2.3	3. Approach: Lightvector with highest Intensity	6
5	Evaluation	7
6	Project Management	8
6.1	Project Definition	8
6.2	Project Planning	8
6.3	Project Execution	8
6.4	Project Completion	8
7	Conclusion	9

1 Introduction

Vera

1.1 Motivation

Vera

1.2 Usage Context

Vera

1.3 Project Goal

Vera

2 State of the Art

Laura

2.1 Image Forensic

Laura

2.2 Light Vectors

Laura

3 Materials

Laura

3.1 Hardware

Laura

3.2 Software

Laura

CGPC6	Beschreibung
Prozessor	Intel Core i7 6700 CPU @ $4 \times 3.4 - 4.0$ GHz
Arbeitsspeicher	16 GB
Grafikkarte	NVIDIA GeForce GTX 980
Betriebssystem	Windows 10 Education 64 bit
Schnittstellen	2× USB 3.0, 5× USB 2.0, 1× HDMI

Table 1: Übersicht der technischen Daten des Computers für die *Unity*-Simulation.

4 System

Vera

4.1 Lighting Model

Vera

4.2 Different Approaches

Laura

4.2.1 1. Approach: One Lightvector

Laura

4.2.2 2. Approach: Averaging Lightvectors

Laura

4.2.3 3. Approach: Lightvector with highest Intensity

Laura

5 Evaluation

Vera und Laura: Stichpunkte

Vera: Ausformulierung

6 Project Management

Laura

6.1 Project Definition

Laura

6.2 Project Planning

Laura

6.3 Project Execution

Laura

6.4 Project Completion

Laura

7 Conclusion

Vera und Laura

References
