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List of Figures

1 Introduction

1.1 The goals of this thesis

This thesis aims to design and implement a system that integrates a backend powered computer vision with an Augmented Reality (AR) interface. The concept involves a device capturing an image feed through its camera, which is then transmitted to a processing unit. Here, computer vision algorithms analyze the data to extract meaningful information, which is subsequently sent to the AR interface to give feedback to user. In this thesis, I document the journey of developing this system and assess its performance.

1.2 Research Questions

The thesis aims to answer the following Research Questions:

RQ1: What are the technological challenges in combining advanced computer vision algorithms with an AR user interface?

RQ2: Can a system with a backend computer vision system and an AR user interface be used in a cooking environment?

RQ3: Can such a system provide satisfactory user experience?

1.3 Methodology Overview

2 Background (IF NOT COVERED BY 1.1)

3 Literature review

3.1 Client-Server Architectures } }

3.2 Computer Vision (CV) } } (COMBINE IF NEEDED)

3.3 Augmented Reality (AR) }

3.4 Prototypes Similar to Ours

4 Architecture Description

4.1 Perceived Challenges

- Do this based on 3
- Mention challenges encountered by others possible solutions if needed
- Add as many subsections as needed

4.2 Proposed Architecture

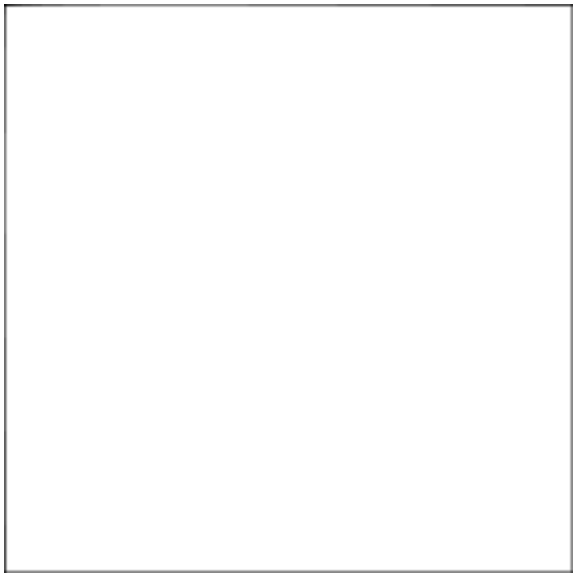

Figure 4.1: Visual Representation of the Proposed Architecture

5 (IMPLEMENTING AN ARCHITECTURE FOR A SOFTWARE SYSTEM WITH AR AND CV)

6 (USABILITY)

7 (FEASIBILITY)

8 Conclusion and summary

8.1 Overview of Results

8.2 Answering Research Questions

8.3 Summary