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State of the Art

This chapter provides the reader with the relevant technical-scientific background as well as existing related products and research, also known as the state of the art, in the field(s) of the project.

Introduction

Provide here an overview of the contents (structure) of this chapter.

Domain aAlysis

Application domain

Current practices

Existing challenges

Opportunities for data-driven solutions

These are examples of citations to books **[1]** and **[2]**, a chapter on a smart companion **[3]**, articles on IoT **[4]**, blimps **[5]**, cloud computing **[6]**, gas emissions **[7]**, pedestrian crossing behaviour **[8]**, smart bicycles **[9]** and diaper moisture **[10]**, and to Web resources **[11]**, **[12]** and **[13]**.

Existing Solutions

Commercial solutions

Open-source solutions

Research prototypes

Data-Driven Approaches

Relevant data analysis techniques

Machine learning and AI approaches (if applicable)

Data visualisation approaches

Decision-support approaches

Compare selected solutions considering the requirements of your own solution

User Experiences and Interaction Design

Existing user interfaces

User-centred design principles

Good practices and design patterns

Technology Analysis

Relevant architectures

Frameworks

Tools and platforms

Gap Analysis

Summary of limitations of existing solutions

Identified opportunity

Positioning of the proposed solution

Summary

Provide here the conclusions of this chapter and make the bridge to the next chapter.

Based on this study of the state of the art, the team decided to adopt the following <specify here the architecture, technique(s), material(s), component(s)> because <specify here the technical/scientific reasons>.

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