

# Thesis

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**Abstract**

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# Chapter 1

## Introduction

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1.1 Example: Variating audio task interaction in Multi-Task Research

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1.2 Multi-Task Research

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1.3 Developing Deep Learning Multi-Task Setups

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1.4 Challenges

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1.5 Contributions

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1.6 Outline

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Introduce the context of multi-task deep learning audio frameworks

Introduce original experiment set-ups as a basis for explaining what kind of multi-task development can be done, what

# Chapter 2

## Problem Statement

Explain that this chapter is about defining the problem and what the solving system should be

### 2.1 Use Cases

### 2.2 Developers

### 2.3 Design Principles

Outline the assumptions you make that the system is built on and the objectives the framework has to achieve to offer better developmental support

### 2.4 Non-functional Requirements

### 2.5 Functional Requirements

# Chapter 3

## Related Work

3.1 Audio Classification

3.2 Multi-task Learning

3.3 Multi-task Deep Learning Audio Tasks

3.4 Development Frameworks

# Chapter 4

## Model

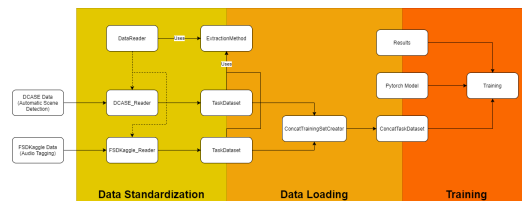


Figure 4.1: Simplified System overview



# Chapter 5

## Implementation

### 5.1 System Architecture

Reiterate the design principles and a description of what functionally has been built

### 5.2 High Level Description

Simplified overview of the pipeline

### 5.3 Data Reading

### 5.4 Data Loading

### 5.5 Training

### 5.6 Complementary tools

Describe things like the index mode, which answer additional needs outside of fast development.

### 5.7 Extendibility

# Chapter 6

## Evaluation

### 6.1 Goals and Results

### 6.2 Discussion on the implementation

### 6.3 Memory Saving (and such)

Any objective demonstration of the system's functionalities (like index mode)

### 6.4 Requirements

# Chapter 7

## Conclusion

### 7.1 Future Work

# Bibliography