# Your Title, e.g. Rule Learning for LaTeX Templates

## Your Subtitle, e.g. Comparing Different Learning Strategies

Bachelor/Master's Thesis

Your Course of Study, e.g. Applied Computer Science

Fakultät Wirtschaftsinformatik und Angewandte Informatik

Otto-Friedrich-Universität Bamberg

Your Name, e.g. Zaphod Beeblebrox (Matr. No. Your Matriculation Number)

October 24, 2023

Supervisor: Prof. Dr. Ute Schmid

**Abstract**

A summary of your work, about half a page of length. An abstract should give the reader all relevant information about the paper in a nutshell: Topic, research question, method, results, evaluation of results.

# Contents

**1 Introduction** **1**

**2 State of Research** **3**
2.1 Formal Grammars . . . . . 3
2.1.1 Second Subsection . . . . . 3
2.2 Application Domain: Sequences of facial expressions . . . . . 3
2.3 Swarm Algorithms . . . . . 3

**3 Methods e.g. Ant-Lion Optimizer Algorithm for Time Series Prediction** **5**

**4 Realisation and Evaluation** **7**

**5 Conclusions and Future Work** **9**

**Bibliography** **11**

**A First Appendix Chapter** **13**
A.1 First Appendix Section . . . . . 13
A.1.1 First Appendix Subsection . . . . . 13

**Declaration of Authorship** **15**

# List of Tables

5.1 Table according to (add citation) . . . . . 9

# List of Figures

5.1 The logo of your university . . . . . 9

# Chapter 1

# Introduction

An introduction gives the motivation of your work:

- What is the topic?
- Why is this relevant?
- Why is this exciting?
- What concrete problem do you want to solve?

State clearly your research question.
The end of the introduction gives an advanced organizer for the rest of the thesis, i.e., a sentence for each chapter.

Typically you cite in one of the following ways: This algorithm is based on GraphPlan (Blum and Furst, 1997). Blum and Furst (1997) introduced GraphPlan as an efficient algorithm for plan construction for finite domains.

# Chapter 2

# State of Research

In this chapter you introduce all necessary theoretical and empirical findings, formalisms or algorithms on which your own work is based. Name the chapter such that the scope is clearly characterized, e.g., *Generalizing Patterns with Grammar Inference Methods*. Use a section for each aspect you are covering.

## 2.1 Formal Grammars

Some content.

### 2.1.1 Second Subsection

Some content.

#### Second Subsubsection

Some content.

## 2.2 Application Domain: Sequences of facial expressions

Some content.

## 2.3 Swarm Algorithms

Some content.

# Chapter 3

# Methods e.g. Ant-Lion Optimizer Algorithm for Time Series Prediction

In the third chapter, you present your own work. This chapter is the most important one. Give definitions for concepts, present algorithms in an abstract way and relate your work to concepts introduced in chapter two.

# Chapter 4

# Realisation and Evaluation

The fourth chapter is typically named *Realisation and Evaluation*. Here you give the most important technical details (more details are given in the appendix). Then you evaluate your approach – typically by test runs. Describe the data used for the tests carefully. Give meaningful graphs. The fourth chapter together with the appendix should give all information which is necessary that somebody else can do the same test runs as you did.

# Chapter 5

# Conclusions and Future Work

The fifth and last chapter typically is named Conclusions and Further Work. Here you summarize what you have done. State what you have reached and open problems.

Some further recommendations: use diagrams, images and tables to illustrate your solution and results. If you do so, please add captions with citations whenever a resource was not created by you. For tables, it is a good style to not use horizontal lines. Some example table:

Table 5.1: Table according to (add citation)

| Some Table | A | B | C | D |
|---|---|---|---|---|
| A | x | | | |
| B | | | x | |
| C | | x | | x |

Some example image:

Figure 5.1: The logo of your university

# Bibliography

Blum, A. and Furst, M. (1997). Fast planning through planning graph analysis. *Artificial Intelligence*, 90(1-2):281–300.

# Appendix A

# First Appendix Chapter

## A.1 First Appendix Section

### A.1.1 First Appendix Subsection

#### First Appendix Subsubsection

# Declaration of Authorship

Ich erkläre hiermit gemäß § 9 Abs. 12 APO, dass ich die vorstehende Bachelor/Masterarbeit selbständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe. Des Weiteren erkläre ich, dass die digitale Fassung der gedruckten Ausfertigung der Bachelor/Masterarbeit ausnahmslos in Inhalt und Wortlaut entspricht und zur Kenntnis genommen wurde, dass diese digitale Fassung einer durch Software unterstützten, anonymisierten Prüfung auf Plagiate unterzogen werden kann.

Bamberg, den _____ _____

Your name e.g. Walentina Tereschkowa-Nikolajewa