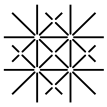

University of Basel

Solving the Sliding-Tile Puzzle using Post-Hoc Optimization

Bachelor Thesis

Natural Science Faculty of the University of Basel
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Abstract

This thesis discusses the thesis template using some examples of the Turing Machine.

Table of Contents

1 Introduction

This is the introduction to the thesis template. The goal is to give students a starting point on how to format and style their Bachelor or Master thesis[1].
Please make sure to always use the most current version of this template, by downloading it always from the original git repository:

http://www.github.com/ivangiangreco/unibas-latex

We will use throughout this tutorial some references to Turing's imitation game [2] and the Turing machine [1]. You may be interested in reading these papers.

The package comes with an option regarding the bibliography style. You can include the package with

```
\usepackage[citeauthor]{basilea}
```

to be able to cite authors directly with

```
\citet{turing:1950}
```

If the option is enabled, then the following reference should print Turing [2]: Turing [2]

[1] This document also shows how to use the template.

2
Background

This section provides background explanations for key concepts as they relate to this thesis. The concepts covered are the sliding tile puzzle (2.1) ...

2.1 Sliding Tile Puzzle

The classic sliding tile puzzle (or 15-puzzle) is a two dimensional combination puzzle composed of 15 numbered tiles and one empty tile arranged in a four by four square. The position of the empty tile can be swapped with adjacent tiles. The goal of the puzzle is to reach a state where the numbered tiles are in row-wise ascending order starting from the top left and the empty tile is in the bottom right.

2.2 Pattern Databases

Lorem ipsum

2.3 Post-Hoc Optimization

3
Conclusion

This is a short conclusion on the thesis template documentation. If you have any comments or suggestions for improving the template, if you find any bugs or problems, please contact me.

Good luck with your thesis!

Bibliography

[1] Alan M Turing. On computable numbers, with an application to the entscheidungsproblem. *Proceedings of the London mathematical society*, 42(2):230–265, 1936.

[2] Alan M Turing. Computing machinery and intelligence. *Mind*, 59(236):433–460, 1950.

A

Appendix

University of Basel

Faculty of Science

Declaration on Scientific Integrity

(including a Declaration on Plagiarism and Fraud)
Translation from German original

Title of Thesis:

Name Assessor: _____

Name Student: _____

Matriculation No.: _____

I attest with my signature that I have written this work independently and without outside help. I also attest that the information concerning the sources used in this work is true and complete in every respect. All sources that have been quoted or paraphrased have been marked accordingly.

Additionally, I affirm that any text passages written with the help of AI-supported technology are marked as such, including a reference to the AI-supported program used. This paper may be checked for plagiarism and use of AI-supported technology using the appropriate software. I understand that unethical conduct may lead to a grade of 1 or "fail" or expulsion from the study program.

Place, Date: _____ Student: _____

Will this work, or parts of it, be published?

No

Yes. With my signature I confirm that I agree to a publication of the work (print/digital) in the library, on the research database of the University of Basel and/or on the document server of the department. Likewise, I agree to the bibliographic reference in the catalog SLSP (Swiss Library Service Platform). (cross out as applicable)

Publication as of: _____

Place, Date: _____ Student: _____

Place, Date: _____ Assessor: _____

Please enclose a completed and signed copy of this declaration in your Bachelor's or Master's thesis.