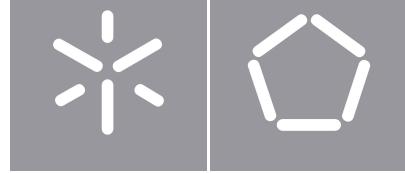


University of Minho
School of Engineering

Author's full name

**Title Title Title Title Title Title
Title Title Title Title Title
Title Title Title Title**



University of Minho
School of Engineering

Author's full name

**Title Title Title Title Title Title
Title Title Title Title Title
Title Title Title Title**

Master's Dissertation in Informatics Engineering

Dissertation supervised by
Supervisor Name
Co-Supervisor Name

Copyright and Terms of Use for Third Party Work

This dissertation reports on academic work that can be used by third parties as long as the internationally accepted standards and good practices are respected concerning copyright and related rights.

This work can thereafter be used under the terms established in the license below.

Readers needing authorization conditions not provided for in the indicated licensing should contact the author through the RepositóriUM of the University of Minho.

License granted to users of this work:

[Caso o autor pretenda usar uma das licenças Creative Commons, deve escolher e deixar **apenas um** dos seguintes ícones e respetivo lettering e URL, eliminando o texto em itálico que se lhe segue.
Contudo, é possível optar por outro tipo de licença, devendo, nesse caso, ser incluída a informação necessária adaptando devidamente esta minuta]



CC BY

<https://creativecommons.org/licenses/by/4.0/> [Esta licença permite que outros remisturem, adaptem e criem a partir do seu trabalho, mesmo para fins comerciais, desde que lhe atribuam o devido crédito e que licenciem as novas criações ao abrigo de termos idênticos. Esta licença costuma ser comparada com as licenças de software livre e de código aberto «copyleft». Todos os trabalhos novos baseados no seu terão a mesma licença, portanto quaisquer trabalhos derivados também permitirão o uso comercial. Esta é a licença usada pela Wikipédia e é recomendada para materiais que seriam beneficiados com a incorporação de conteúdos da Wikipédia e de outros projetos com licenciamento semelhante.]



CC BY-SA

<https://creativecommons.org/licenses/by-sa/4.0/> [Esta licença permite que outros remisturem, adaptem e criem a partir do seu trabalho, mesmo para fins comerciais, desde que lhe atribuam o devido crédito e que licenciem as novas criações ao abrigo de termos idênticos. Esta licença costuma ser comparada com as licenças de software livre e de código aberto «copyleft». Todos os trabalhos novos baseados no seu terão a mesma licença, portanto quaisquer trabalhos derivados também permitirão o uso comercial. Esta é a licença usada pela Wikipédia e é recomendada para materiais que seriam beneficiados com a incorporação de conteúdos da Wikipédia e de outros projetos com licenciamento semelhante.]



CC BY-ND

<https://creativecommons.org/licenses/by-nd/4.0/> [Esta licença permite que outras pessoas usem o seu trabalho para qualquer fim, incluindo para fins comerciais. Contudo, o trabalho, na forma adaptada, não poderá ser partilhado com outras pessoas e têm que lhe ser atribuídos os devidos créditos.]



CC BY-NC

<https://creativecommons.org/licenses/by-nc/4.0/> [Esta licença permite que outros remisturem, adaptem e criem a partir do seu trabalho para fins não comerciais, e embora os novos trabalhos tenham de lhe atribuir o devido crédito e não possam ser usados para fins comerciais, eles não têm de licenciar esses trabalhos derivados ao abrigo dos mesmos termos.]



CC BY-NC-SA

<https://creativecommons.org/licenses/by-nc-sa/4.0/> [Esta licença permite que outros remisturem, adaptem e criem a partir do seu trabalho para fins não comerciais, desde que lhe atribuam a si o devido crédito e que licenciem as novas criações ao abrigo de termos idênticos.]



CC BY-NC-ND

<https://creativecommons.org/licenses/by-nc-nd/4.0/> [Esta é a mais restritiva das nossas seis licenças principais, só permitindo que outros façam download dos seus trabalhos e os compartilhem desde que lhe sejam atribuídos a si os devidos créditos, mas sem que possam alterá-los de nenhuma forma ou utilizá-los para fins comerciais.]

Acknowledgements

Write your acknowledgements here. Do not forget to mention the projects and grants that you have benefited from while doing your research, if any. Ask your supervisor about the specific textual format to use. (Funding agencies are quite strict about this.)

Statement of Integrity

I hereby declare having conducted this academic work with integrity.

I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration.

I further declare that I have fully acknowledged the Code of Ethical Conduct of the University of Minho.

University of Minho, Braga, september 2025

Author's full name

Abstract

Write abstract here (in English)

Keywords keywords, here, comma, separated

Resumo

Escrever aqui o resumo (em português)

Palavras-chave palavras, chaves, aqui, separadas, por, vírgulas

Contents

1	Introduction	1
2	State of the Art	2
2.1	Citations	2
2.2	Mathematical expressions	2
2.3	Footnotes	2
2.4	Acronyms and Glossary	3
2.5	Index	3
3	The problem and its challenges	4
3.1	Images	4
4	Contribution	5
4.1	Introduction	5
4.2	Summary	5
5	Applications	6
5.1	Introduction	6
5.2	Summary	6
6	Conclusions and future work	7
6.1	Conclusions	7
6.2	Future work	7
7	Planned Schedule	8
7.1	Activities	8
	Bibliography	9
	Index	10
A	Support work	11
B	Details of results	12
C	Listings	13
D	Tooling	14

List of Figures

Figure 1 Logo of the University of Minho	4
--	---

List of Tables

Table 1	Planned Schedule	8
---------	------------------------	---

Chapter 1

Introduction

Context, motivation, main aims.

Chapter 2

State of the Art

State of the art review; related work.

2.1 Citations

Example of a citation: [1], or [1] “The Rust Programming Language.” [Online]. Available: <https://doc.rust-lang.org/book/>. This entry is in the `bibliography.yml` file.

Typst also supports the LaTeX `.bib` file format, but the [Hayagriva YAML](#) format is easier to use.

Check more information about bibliography [here](#) and [here](#).

2.2 Mathematical expressions

The mass-energy equivalence is expressed by the equation

$$E = mc^2 \tag{1}$$

discovered in 1905 by Albert Einstein. In natural units ($c = 1$) the formula expresses the identity

$$E = m$$

Check more information about math expressions [here](#).

2.3 Footnotes

This is a footnote example¹.

¹The quick brown fox jumps over the lazy dog.

2.4 Acronyms and Glossary

Given a set of numbers, there are elementary methods to compute its Greatest Common Divisor (GCD), which is abbreviated GCD. This process is similar to that used for the Least Common Multiple (LCM).

The Typst language is specially suitable for documents that include Maths. Formulas are rendered properly as the Typst syntax is designed to be easy to understand and use.

This glossary is powered by the [glossy](#) package. Check more about it there.

2.5 Index

In this example, several keywords will be used which are important and deserve to appear in the Index.

Terms like generate and some will also show up. Terms in the index can also be nested.

The index is powered by the [in-dexter](#) package. Check more about it there.

Chapter 3

The problem and its challenges

The problem and its challenges.

3.1 Images

Example of inserting an image as displayed text,



or as a figure:

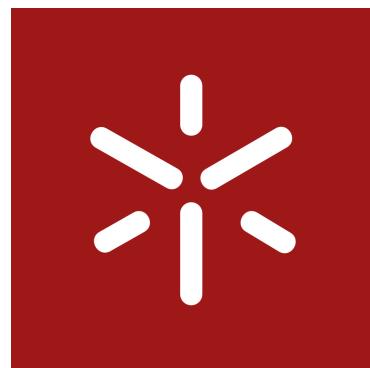


Figure 1: Logo of the University of Minho

Chapter 4

Contribution

Main result(s) and their scientific evidence

4.1 Introduction

4.2 Summary

Chapter 5

Applications

Applications of the main result (examples and case studies)

5.1 Introduction

5.2 Summary

Chapter 6

Conclusions and future work

Conclusions and future work

6.1 Conclusions

6.2 Future work

Chapter 7

Planned Schedule

7.1 Activities

Task	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Background and SOA	●	●	●							
PDR preparation		●	●	●						
Contribution			●	●	●	●	●	●	●	
Writing up							●	●	●	●

Table 1: Planned Schedule

For more elegant visualisation check some community-made packages like [gantty](#) or [timeliney](#).

Bibliography

- [1] “The Rust Programming Language.” [Online]. Available: <https://doc.rust-lang.org/book/>
- [2] B.W. Kernighan and D.M. Ritchie, *The C Programming Language (ANSI C)*, 2nd ed. Prentice Hall Software series.
- [3] R. Bird and P. Wadler, “Introduction to Functional Programming.”
- [4] “Typst Documentation.” [Online]. Available: <https://typst.app/docs/>

Index

G

Generate 3

I

Index 3

 Nested 3

K

Keywords 3

O

Others 3

Appendix A

Support work

Auxiliary results which are not main-stream.

Appendix B

Details of results

Details of results whose length would compromise readability of main text.

Appendix C

Listings

Should this be the case.

```
factorial :: Integer -> Integer
factorial 0 = 1
factorial n = n * factorial (n-1)
```

Listing 1: Factorial function

Appendix D

Tooling

(Should this be the case)

Anyone using LaTeX should start using [Typst](#).

Place here information about funding, FCT project, etc. in which the work is framed. Leave empty otherwise.