



Università degli Studi di Napoli Federico II
Ph.D. Program in
Information Technology and Electrical Engineering
XXXVIII Cycle

THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Title First Row
Title Second Row

by

GIVEN_NAME FAMILY_NAME

Advisor: Prof. X Y

Co-advisor: Prof. W Z



SCUOLA POLITECNICA E DELLE SCIENZE DI BASE
DIPARTIMENTO DI INGEGNERIA ELETTRICA E DELLE TECNOLOGIE DELL'INFORMAZIONE

Dedication

or

Some quote

TITLE FIRST ROW TITLE SECOND ROW

Ph.D. Thesis presented
for the fulfillment of the Degree of Doctor of Philosophy
in Information Technology and Electrical Engineering
by

GIVEN _NAME FAMILY _NAME

October 2025



Approved as to style and content by

Prof. X Y, Advisor

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Università degli Studi di Napoli Federico II

Ph.D. Program in Information Technology and Electrical Engineering
XXXVIII cycle - Chairman: Prof. Stefano Russo



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Candidate's declaration

I hereby declare that this thesis submitted to obtain the academic degree of Philosophiæ Doctor (Ph.D.) in Information Technology and Electrical Engineering is my own unaided work, that I have not used other than the sources indicated, and that all direct and indirect sources are acknowledged as references.

Parts of this dissertation have been published in international journals and/or conference articles (see list of the author's publications at the end of the thesis).

Napoli, July 16, 2025

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Abstract

According to the PhD program regulations, theses are written in English. An abstract and keywords are mandatory, both in English and in Italian. Try to make each fit on one page.

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La tesi di dottorato è redatta in lingua inglese. La tesi deve essere corredata da una sintesi (abstract) in lingua inglese e in lingua italiana. Cercare di limitare ciascuna sintesi ad una pagina.

L'abstract è seguito da una lista da quattro a sei parole chiave. Le parole chiave devono essere scelte accuratamente per l'efficacia dell'indicizzazione e delle ricerche nelle banche dati.

La tesi è valutata da almeno due valutatori, anche appartenenti a istituzioni estere, non appartenenti all'ente che rilascia il titolo di dottorato e in possesso di elevata qualificazione, di cui almeno uno è un docente universitario.

I valutatori, che possono appartenere a istituzioni estere o internazionali, entro trenta giorni dal ricevimento della tesi, esprimono un giudizio analitico scritto, proponendo l'ammissione alla discussione pubblica o il rinvio della discussione della tesi per un periodo non superiore a sei mesi se ritengono necessarie significative integrazioni o correzioni.

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Previa autorizzazione del Collegio dei Docenti, possono essere rese indisponibili, eventualmente anche fissando un limite temporale, parti della tesi in relazione all'utilizzo di dati tutelati da segreto industriale ai sensi della normativa vigente.

Parole chiave: da quattro, a sei, parole chiave, separate da virgola.

Acknowledgements

Put acknowledgements here, e.g. to fundings (PON, company-funded scholarship, EU project, CERN Doctoral Student Program, INPS Dottorati innovativi Intersectoriali “Industria 4.0”, etc.), to hosting labs, to used resources, to foreign hosting institutions for research periods spent abroad, etc.

Examples:

The research presented in this dissertation has been supported by the Italian Ministry of University and Research (MUR) under program PON 2014-2020 ...

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Contents

Abstract	i
Sintesi in lingua italiana	iii
Acknowledgements	v
List of Acronyms	ix
List of Figures	xi
List of Tables	xiii
List of Symbols	xv
1 Introduction	1
2 Title, e.g.: Background and related work	3
2.1 Section title	3
2.1.1 Subsection title	3
2.1.2 Subsection title	4
2.2 Section title	5
2.2.1 Subsection title	5
2.2.2 Subsection title	5
2.2.3 Subsection title	6
3 Title of chapter 3	7
3.1 Section title	7

3.1.1	Subsection title	7
3.1.2	Subsection title	7
4	Title of chapter 4	9
4.1	Section title	9
4.1.1	Subsection title	9
5	Conclusions	11
	Bibliography	13
	Author's publications	15

List of Acronyms

The following acronyms are used throughout the thesis.

ML Machine Learning

RQ Research Question

List of Figures

2.1	Figure caption goes below the figure	4
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List of Tables

2.1 Table caption goes above the table 4

List of Symbols

The following symbols are used within the thesis

c Speed of light in a vacuum

h Planck constant

Chapter 1

Introduction

*Experience is the hardest kind of
teacher: it gives you the test first and
the lesson afterward.*

Oscar Wilde

The thesis page format is B5, double side.

Chapters start at odd page numbers (right pages). Optionally, an epigraph may be added like above.

...

Just an example of how to conclude the introduction:

The rest of the thesis is structured as follows.

Chapter 1 introduces ...

Chapter 2 presents ...

Chapter 3 ...

Chapter 4 ...

Chapter 5 summarizes ...

next page left empty if this is an odd page

Chapter 2

Title, e.g.: Background and related work

Experience is the hardest kind of teacher: it gives you the test first and the lesson afterward.

Oscar Wilde

Chapters start at odd page numbers (right pages). Optionally, an epigraph may be added like above.

Previous page left empty if previous chapter ends with odd page number.

Text continues.

Text

This chapter presents ...

2.1 Section title

2.1.1 Subsection title

Text

Text



Figure 2.1. Figure caption goes below the figure

2.1.2 Subsection title

Sample text with reference to Figure 2.1.
Text with citation to ref. [1].

Subsubsection title (no numbering)

Sample text with reference to Table 2.1.
Text

Subsubsection title

Left page of a chapter (even page number) - note the page heading

Table 2.1. Table caption goes above the table

Name	Command
Chapter	<code>\chapter{Chapter name}</code>
Section	<code>\section{Section name}</code>
Subsection	<code>\subsection{Subsection name}</code>
Subsubsection	<code>\subsubsection{Subsubsection name}</code>
Paragraph	<code>\paragraph{Paragraph name}</code>
Subparagraph	<code>\paragraph{Subparagraph name}</code>

2.2 Section title

2.2.1 Subsection title

Right page of a chapter (odd page number) - note the page heading

Text

Subsubsection title (no numbering)

Text

2.2.2 Subsection title

Text

Example of itemization:

- Item 1 text
- Item 2 text
- Item 3 text
- Item 4 text

Subsubsection title (no numbering)

Text

Example of enumeration:

1. Item 1 text
2. Item 2 text
3. Item 3 text
4. Item 4 text

Text

2.2.3 Subsection title

Text

Text

Chapter 3

Title of chapter 3

Chapters start at odd page numbers (right pages).

Previous page left empty if previous chapter ends with odd page number.

3.1 Section title

3.1.1 Subsection title

Text

Text

Subsubsection title

Text

Text

Text

Text

3.1.2 Subsection title

Text

Text

Text

Chapter 4

Title of chapter 4

Chapters start at odd page numbers (right pages).

Previous page left empty if previous chapter ends with odd page number

4.1 Section title

4.1.1 Subsection title

Subsubsection title

Chapter 5

Conclusions

Text

Bibliography

- [1] D.E. Knuth. The errors of TEX. *Software: Practice and Experience*, 19(7), 1989.

Author's publications

Insert here the list of your scientific publications during the PhD, e.g.:

1. D.E. Knuth. The errors of TEX. Software: Practice and Experience, 19(7), 1989. DOI: 10.1002/spe.4380190702.
2. D.E. Knuth. Structured Programming with go to Statements, ACM Computing Surveys, 6(4), 261-301, 1974. DOI: 10.1145/356635.356640.

