YOUR THESIS TITLE

by

Your Full Name

Submitted in partial fulfillment of the requirements for the degree of Master of Computer Science

at

Dalhousie University Halifax, Nova Scotia April 2025 Dedicated to someone if you want.

Table of Contents

List of	Tables	5	\mathbf{v}
List of	Figure	es	vi
Abstra	act		vii
List of	Abbre	eviations Used	viii
Ackno	wledge	ments	ix
Chapt	er 1	Introduction	1
1.1	Section 1.1.1	Example	1 1
1.2	Genera	al	1
1.3	Figure	s	2
1.4	Tables		2
1.5	Lists		4
1.6	Formu	las or Equations	4
1.7	Code		5
1.8	Algorit	thms or pseudo-code	5
1.9	Citatio	ons	6
Chapt	er 2	Background and Related Works	7
Chapt	er 3	Methodology	8
Chapt	er 4	Experimental Setup and Results	9
Chapt	er 5	Discussion	10
Chapte	er 6	Conclusion	11

Bibliography		12
Appendix A	Appendix Chapter	13
A.1 First A	Appendix	1.5

List of Tables

1.1	Table title	•
1.2	Use makecell to adjust text	4
1.3	Auto adjust width table	4

List of Figures

1.1	Figure 1 Title
1.2	Figure 2 Title

Abstract

This is your abstract.

List of Abbreviations Used

Acronyms

IDS Intrusion Detection System

IoT Internet of Things

Functions

f(x) A function mapping x to y

Sets

N Set of natural numbers

Acknowledgements

You acknowledgements.

Introduction

1.1 Section Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin ultricies ultricies nisi eget maximus.

1.1.1 Subsection Example

Morbi tristique lacus sit amet ante vulputate vestibulum.

Subsubsection Example

Phasellus laoreet, metus et sagittis lacinia.

1.2 General

This is your introduction.

Line 1

Line 2

Line 3

This is the percentage sign: %, 50%.

For inserting special symbols in Latex, e.g. math, Roman letters, etc., check out this document: https://www.cmor-faculty.rice.edu/~heinken/latex/symbols. pdf to find the commands for the symbols you need, i.e. Ω , λ , write the symbol between two dollar signs.

This is a red text. This is a green text.

Bold text and *Italic text*.

1.3 Figures

Upload your pictures to the figures folder. As shown in Figure 1.1. and Figure 1.2:

Sample Figure

Figure 1.1: Figure 1 Title

Sample Figure Sample Figure

(a) Subfigure 1 (b) Subfigure 2

Figure 1.2: Figure 2 Title

1.4 Tables

These online tools can help you to generate a table:

- https://www.tablesgenerator.com/
- https://www.latex-tables.com/

- https://tableconvert.com/latex-generator
- See more table tutorial: https://www.overleaf.com/learn/latex/Tables

Table 1.1: Table title						
Column1	Column2					
Lorem Ipsum	Lorem Ipsum					
Lorem Ipsum	Lorem Ipsum					

You can cite this table, Table 1.1.

If you want to use the same table style as the template, you just need to replace the content in the table:

- 1. Change the table title in \caption{Table title}
- 2. Change the number of columns in \begin{tabular}{11}, one l represents one column. You can also use c, to represent center-aligned text, i.e. \begin{tabular}{11cc} = four columns. To display vertical lines, insert | between {11}: {l|l}.
- 3. Add your column names: 2 columns = \textbf{Column1} & \textbf{Column2}, add & between two columns.
- 4. \\ represents new line, \hline represent horizontal line between rows
- 5. Insert the elements of your table, separating each column with &, and separating each row with \\.
- 6. Last, change the label of your table, so you can cite the table in the text.
- 7. You can always use online LaTex table generators, copy and paste your table from your Excel file, and convert it, check and change the syntax.

If you have too much text in your table, which exceeds the width of the page, you have two options:

- 1. use the \makecell[]{} command to make the text in a cell multiline: Table 1.2.
- 2. use a table that automatically adjusts its width: Table 1.3.

Table 1.2: Use makecell to adjust text

Column1	Column2				
Lorem Ipsum	Lorem				
is simply	Ipsum is simply				
dummy text	dummy text				

Table 1.3: Auto adjust width table

Column1		Colum	Column2			Column3			Column4		
Lorem	Ipsum is	Lorem	Ipsum	is	Lorem	Ipsum	is	Lorem	Ipsum	is	
simply	dummy	simply	y dummy		simply	dummy		simply	dummy		
text		text			text			text			

1.5 Lists

Here's two kinds of lists, see more: https://www.overleaf.com/learn/latex/Lists.

- 1. Lorem ipsum dolor sit amet.
- 2. Lorem ipsum dolor sit amet.
- 3. Lorem ipsum dolor sit amet.
- Lorem ipsum dolor sit amet.
- Lorem ipsum dolor sit amet.
- Lorem ipsum dolor sit amet.

1.6 Formulas or Equations

Here's a latex formula generator: https://latexeditor.lagrida.com/, you can also use AI tools (ChatGPT) to help you.

Three ways of inline math: $E=mc^2,\,E=mc^2,\,E=mc^2.$

TP = True Positives

FP = False Positives

TN = True Negatives

FN = False Negatives

$$Accuracy = \frac{TP + TN}{TP + TN + FP + FN} \tag{1.1}$$

$$Precision = \frac{TP}{TP + FP} \tag{1.2}$$

$$Recall = \frac{TP}{TP + FN} \tag{1.3}$$

$$Recall = \frac{TP}{TP + FN}$$

$$F1 \ Score = 2 \times \frac{Precision \times Recall}{Precision + Recall}$$

$$(1.3)$$

1.7 Code

You can insert code, see: https://www.overleaf.com/learn/latex/Code_listing

Listing 1.1: Python example

```
def my_function():
  print("Hello - World")
```

```
def my_function():
 print("Hello World")
```

Algorithms or pseudo-code

See more: https://www.overleaf.com/learn/latex/Algorithms. It is highly recommended to use AI tools to help you convert your code to algorithmic or pseudocode.

Algorithm 1 Simple Sum of Two Numbers

Require: Two numbers a, b

Ensure: Sum s = a + b

1: $s \leftarrow a + b$

2: Return s

1.9 Citations

How to add your reference list: Find the papers from Google Scholar, click on the cite, select BibTex, copy and paste it to reference.bib file. Use \cite{} to link the paper, to generate an in-text citation.

This is an example of the in-text citation [1].

Link a paper using the command: \cite{}.

Link a table, figure or other elements using the command: \ref{}, make sure you defined the name of the table or figure, just like: \label{tb_tableName}.

Background and Related Works

 ${\bf Methodology}$

Experimental Setup and Results

Discussion

Conclusion

Bibliography

[1] K. He, X. Zhang, S. Ren, and J. Sun, "Deep residual learning for image recognition," in *Proceedings of the IEEE conference on computer vision and pattern recognition*, pp. 770–778, 2016.

Appendix A

Appendix Chapter

A.1 First Appendix