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.

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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. This is the new line command:

A newline

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. This is your 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

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:

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

- 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				

1.5 Lists

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

Table 1.3: Auto adjust width table

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

- 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.

Formulas or Equations 1.6

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

TP = True Positives

FP = False Positives

TN = True Negatives

FN = False Negatives

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

$$(1.1)$$

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

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

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

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

$$(1.3)$$

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")
```

1.8 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