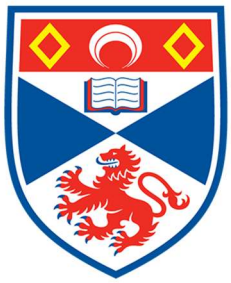
Title of the Thesis: sadlasda asdasffgaa adasdasd Tesdfsdfsd aseasdsadas wewqeqwe adasda weqw adaddasdsa

Student name



University of
St Andrews

This thesis is submitted in partial fulfilment for the degree of

Doctor of Philosophy (PhD)

at the University of St Andrews

April 2025

Candidate's declaration

I, XXXXXX, do hereby certify that this thesis, submitted for the degree of PhD, which is approximately 30,000 words in length, has been written by me, and that it is the record of work carried out by me, or principally by myself in collaboration with others as acknowledged, and that it has not been submitted in any previous application for any degree. I confirm that any appendices included in my thesis contain only material permitted by the 'Assessment of Postgraduate Research Students' policy.

I was admitted as a research student at the University of St Andrews in October 2022.

I received funding from an organisation or institution and have acknowledged the funder(s) in the full text of my thesis.

Date Signature of candidate

Supervisor's declaration

I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of PhD in the University of St Andrews and that the candidate is qualified to submit this thesis in application for that degree. I confirm that any appendices included in the thesis contain only material permitted by the 'Assessment of Postgraduate Research Students' policy.

Date Signature of supervisor

Permission for publication

In submitting this thesis to the University of St Andrews we understand that we are giving permission for it to be made available for use in accordance with the regulations of the University Library for the time being in force, subject to any copyright vested in the work not being affected thereby. We also understand, unless exempt by an award of an embargo as requested below, that the title and the abstract will be published, and that a copy of the work may be made and supplied to any bona fide library or research worker, that this thesis will be electronically accessible for personal or research use and that the library has the right to migrate this thesis into new electronic forms as required to ensure continued access to the thesis.

I, XXXXXXXX, confirm that my thesis does not contain any third-party material that requires copyright clearance.

The following is an agreed request by candidate and supervisor regarding the publication of this thesis:

Electronic copy

No embargo on electronic copy.

Date Signature of candidate

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Underpinning Research Data or Digital Outputs

Candidate's declaration

I, XXXXXXXX, hereby certify that no requirements to deposit original research data or digital outputs apply to this thesis and that, where appropriate, secondary data used have been referenced in the full text of my thesis.

Date Signature of candidate

Abstract

Abstract goes here.

Acknowledgements

Acknowledgement goes here.

Funding

This work was supported by the XXX [Grant Number].

Contents

List of Figures

List of Tables

Acronyms

AI Artificial Intelligence

ML Machine Learning

CHAPTER ONE

Introduction

This is a PhD/Master thesis template for the University of St Andrews, modified from the Lakshithade Silva's GitHub repository[1]. I solved some warnings in the original repo, and added some features and more LaTeXusage examples. I will give the necessary explanation in the following sections.

1.1 Added Features & Solved Warnings

1.1.1 Flexible Title Page

When you declare the intention of submitting the thesis, the MySaint will automatically generate a title page pdf. Some people may want to use this pdf rather than the template in this LaTeXproject.

The usage is simple:

- If you want to use the pdf provided by MySaint:
  replace the *prologue/pdfs/titlepage.pdf* to your own title page
- If you want to use the tile page of LaTeX: Delete or comment the **line 111**
  \ titlepagepdf{prologue/pdfs/titlepage.pdf} of *thesis.tex*

1.1.2 Flexible Declaration

Same as the title page, MySaint also provides the declaration template. Please refer to the comments in **line 117-119** of *thesis.tex*.

[1] `https://github.com/LakshithadeSilva/stacs-thesis`

1.1.3 Ethics Approval

These years the School of Computer Science tends to more stringent ethical assessment, even you only use the open-source dataset, you need to apply the ethical approval and attach it in the thesis. I added an example in the Appendix C.

1.1.4 In-Math Font

The in-math font of the original LaTeX template looks a little bit weird for me, which does not align with the convention of AI conference, so I changed it somehow.

1.1.5 Box and Color of the Hyperlink

Same as the in-math font, I changed it.

1.1.6 Acronyms Warnings

The original LaTeX template has some warnings about glossary/acronyms, it is fine to compile but annoying for me, so I correct them somehow.

1.2 More Examples of LaTeX Usage

1.2.1 Acronyms

You should define acronyms in the *prologue/glossarys.tex* first, then use it. Here are some usages:

- When you first time call \gls{ai}, it will appear: Artificial Intelligence (AI), i.e., full and abbreviated.
- Same as the \glspl{ml}: Machine Learnings (MLs), "pl" refers to the plurality.
- afterwards, when you call \gls{ai}, it appears AI. To make it full and abbreviated, use Artificial Intelligence (AI) or Artificial Intelligences (AIs).

1.2.2 Support of the Formula in Section Title

If I remember it correctly, this template does not support to have the math symbol in the section title, I solved it somehow. Please refer to Chapter 2.2.

1.2.3 Solution for the Long Chapter Tile or Float Caption

Some chapter title is quite long and it's ugly in the table of content, please see the $\boxed{chap-example/doc.tex}$ (Chapter 2).

CHAPTER TWO

This is a very Long Title This is a very Long Title This is a very Long Title This is a very Long Title

2.1 Long Caption

Same as the float:

Table 2.1: Ablation study on α. Ablation study on α. Ablation study on α. Ablation study on α. Ablation study on α. Ablation study on α. Ablation study on α. Ablation study on α.

prompt	α	PSNR↑		FID↓		SSIM↑		LPIPS↓		ACDM↓	
		SD14	SD15	SD14	SD15	SD14	SD15	SD14	SD15	SD14	SD15
P1	1	18.18	18.18	137.44	134.12	0.4563	0.4576	0.6137	0.6119	0.1075	0.1080
	2	**18.02**	**18.02**	**139.11**	**135.32**	0.4441	0.4453	**0.6188**	**0.6171**	**0.1106**	**0.1110**
	4	18.43	18.44	132.79	132.77	**0.4408**	**0.4419**	0.6057	0.6049	0.0961	0.0966
P2	1	16.85	16.82	70.40	68.52	0.4448	0.4445	0.5956	0.5938	0.1131	0.1142
	2	**16.74**	**16.70**	**70.59**	**69.04**	0.4336	0.4329	**0.6005**	**0.5990**	**0.1156**	**0.1167**
	4	17.10	17.08	66.88	65.54	**0.4330**	**0.4327**	0.5887	0.5863	0.1018	0.1026
P3	1	16.86	16.91	155.70	152.69	0.4330	0.4323	0.6165	0.6171	0.1052	0.1053
	2	**16.71**	**16.78**	**156.47**	**153.85**	0.4234	0.4228	**0.6202**	**0.6204**	**0.1084**	**0.1079**
	4	17.00	17.04	140.65	139.28	**0.4198**	**0.4189**	0.6110	0.6108	0.0958	0.0956
P4	1	17.75	17.62	**118.34**	113.48	0.4138	0.4067	0.6305	0.6337	0.1021	0.1036
	2	**17.61**	**17.50**	116.48	**115.41**	0.4004	0.3942	**0.6361**	**0.6394**	**0.1051**	**0.1067**
	4	17.96	17.85	110.58	109.59	**0.3929**	**0.3876**	0.6302	0.6347	0.0918	0.0927
P5	1	16.91	17.06	132.37	128.71	0.4670	0.4628	0.5989	0.6004	0.1207	0.1182
	2	**16.81**	**16.95**	**134.71**	**129.93**	0.4568	0.4524	**0.6032**	**0.6047**	**0.1227**	**0.1209**
	4	17.18	17.33	126.82	124.19	**0.4547**	**0.4516**	0.5932	0.5939	0.1088	0.1073

2.2 Math Formula $\frac{1}{2}\alpha$ Support in the Section Title

\texorpdfstring{formula}{corresponding pure text}

2.3 Citation

Only support something like Some researchers [3] $\cdots$, do not support \citeauthor or \citeyear.

2.4 Draw Figures

You may need to have some figures in one pdf (for faster compile), here I provide a example how I make it in $\boxed{chap-example/figs/draw-figure.tex}$. Please note that, you may be unable to compile if you compile the thesis before, just clean the cache or recompile from scratch. Then download it and insert it in the thesis:

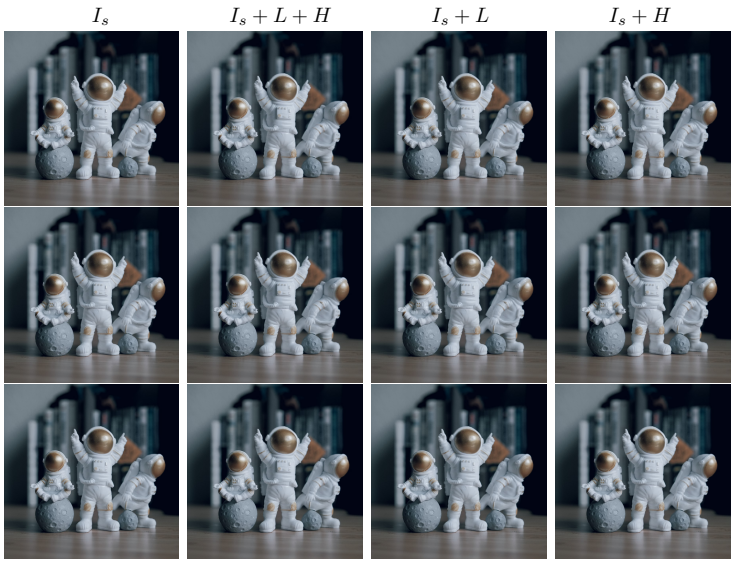

Figure 2.1: long caption. long caption. long caption. long caption. long caption. long caption. long caption. long caption.

2.4.1 Position of the figure

In line 17, you may notice the htbp. h=here, t=top, b=bottom, p=anywhere of the page. In some case “h” doesn’t work, try only “H”.

2.5 Useful Tools

- Table: `https://tablesgenerator.com/latex_tables`
- Formula: `https://www.latexlive.com/`
- Crop pdf's blank border (Usually works for ppt made pdf): `https://croppdf.com/`

APPENDIX A

Miscellaneous

APPENDIX B

List of Publications

Peer Reviewed Conference Contributions

1. **Chenlin Meng**, Yutong He, Yang Song, Jiaming Song, Jiajun Wu, Jun-Yan Zhu, and Stefano Ermon. SDEdit: Guided image synthesis and editing with stochastic differential equations. In *International Conference on Learning Representations*, 2022.

Peer Reviewed Journal Contributions

1. **Haochen Dou**, Zhenwu Dan, Peng Xu, Wei Wang, Shuning Xu, Tianyang Chen, and Hai Jin. Dynamic searchable symmetric encryption with strong security and robustness. *IEEE Transactions on Information Forensics and Security*, 19:2370–2384, 2024.

Preprints Under Review

1. **Christina M Funke**, Leon A Gatys, Alexander S Ecker, and Matthias Bethge. Synthesising dynamic textures using convolutional neural networks. *arXiv preprint arXiv:1702.07006*, 2017.

APPENDIX C

The Ethics Approval

This Appendix is to show any ethical concerns about this project.

According to the regulations of UTREC[1] (University Teaching and Research Ethics Committee), there is no ethical issues raised by this thesis.

The ethical approval document will be attached in the following pages.

[1] https://www.st-andrews.ac.uk/utrec/

University of St Andrews | FOUNDED 1413

School of Computer Science Ethics Committee

15 February 2024

Dear XXX,

Thank you for submitting your ethical application which was considered by the School Ethics Committee.

The School of Computer Science Ethics Committee, acting on behalf of the University Teaching and Research Ethics Committee (UTREC), has approved this application:

Approval Code:	CSXXXXX	**Approved on:**	dd.mm.yyyy	**Approval Expiry:**	dd.mm.yyyy
Project Title:	XXXXXXXXXXXXXXXXXXXX				
Researcher(s):	XXXXXXXXXXXXXXX				
Supervisor(s):	Asadasdsadasdsadsadasda				

The following supporting documents are also acknowledged and approved:

1. Application Form
2. Participant Information Sheet
3. Participant Debrief
4. Questionnaire

Approval is awarded for 5 years, see the approval expiry data above.

If your project has not commenced within 2 years of approval, you must submit a new and updated ethical application to your School Ethics Committee.

If you are unable to complete your research by the approval expiry date you must request an extension to the approval period. You can write to your School Ethics Committee who may grant a discretionary extension of up to 6 months. For longer extensions, or for any other changes, you must submit an ethical amendment application.

You must report any serious adverse events, or significant changes not covered by this approval, related to this study immediately to the School Ethics Committee.

Approval is given on the following conditions:

- that you conduct your research in line with:
  - the details provided in your ethical application
  - the University's Principles of Good Research Conduct
  - the conditions of any funding associated with your work
- that you obtain all applicable additional documents (see the 'additional documents' webpage for guidance) before research commences.

You should retain this approval letter with your study paperwork.

Yours sincerely,

SEC Administrator

School of Computer Science Ethics Committee
Dr XXXXXXXXXXXXX, Jack Cole Building, North Haugh, St Andrews, Fife, KY16 9SX
Telephone: 01334 463273 Email: ethics-cs@st-andrews.ac.uk

References

[1] Haochen Dou, Zhenwu Dan, Peng Xu, Wei Wang, Shuning Xu, Tianyang Chen, and Hai Jin. Dynamic searchable symmetric encryption with strong security and robustness. *IEEE Transactions on Information Forensics and Security*, 19:2370–2384, 2024.

[2] Christina M Funke, Leon A Gatys, Alexander S Ecker, and Matthias Bethge. Synthesising dynamic textures using convolutional neural networks. *arXiv preprint arXiv:1702.07006*, 2017.

[3] Jonathan Ho, Ajay Jain, and Pieter Abbeel. Denoising diffusion probabilistic models. *Advances in Neural Information Processing Systems*, 33:6840–6851, 2020.

[4] Chenlin Meng, Yutong He, Yang Song, Jiaming Song, Jiajun Wu, Jun-Yan Zhu, and Stefano Ermon. SDEdit: Guided image synthesis and editing with stochastic differential equations. In *International Conference on Learning Representations*, 2022.