Your Thesis Title

Your Name

Thesis submitted to the University of Nottingham
for the degree of Doctor of Philosophy

September 2018

To my parents.

** If you want to modify the content here, please go to line 99 of < thesis.sty >.*

Abstract

Please give a brief overview of your thesis here.

Acknowledgements

Acknowledgements here

List of Publications

1. Your First Publication [Chapter 3]
2. Your Second Publication [Chapter 4]
3. Your Third Publication [Chapter 5]
4. Your Forth Publication [Chapter 6]

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Chapter 1

Introduction

Please introduce your motivation, aims & scope, technical challenges, methodology and main contributions of this thesis.

1.1 Motivations

1.2 Aims and Scope

1.3 Technical Challenges

1.4 Methodologies

1.5 Contributions

Chapter 2

Literature Review

This is one example of citation [1].

2.1 Research Area 1

2.1.1 Subsection A

2.1.2 Subsection B

2.1.3 Subsection C

2.2 Research Area 2

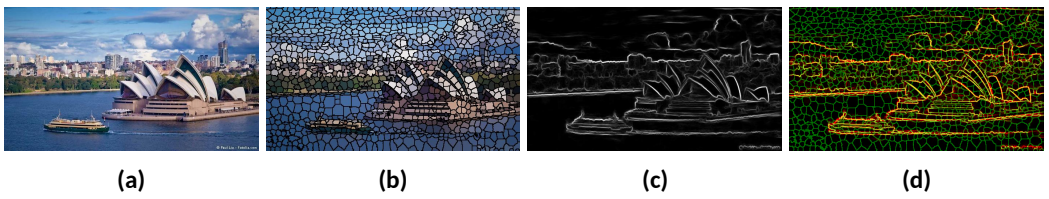

Figure 2.1: *An Example of Figure and its Captions.*

2.3 Summary

Chapter 3

Title of Your First Technical Chapter

3.1 Introduction

Please briefly introduce the motivations, research questions and/or objectives, and indicate your main contributions of this chapter.

[Important] If the page break is not working normally, you can try the command *clearpage*.

3.2 Methodology

3.3 Experimental Results

3.3.1 Dataset

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3.4 Discussions

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3.4.3 Limitations and Future Work

3.5 Concluding Remarks

Chapter 4

Title of Your Second Technical Chapter

4.1 Introduction

Please briefly introduce the motivations, research questions and/or objectives, and indicate your main contributions of this chapter.

[Important] If the page break is not working normally, you can try the command *clearpage*.

4.2 Methodology

4.3 Experimental Results

4.3.1 Dataset

4.3.2 Implementation Details

4.3.3 Evaluation Metrics

4.3.4 Quantitative Results

4.3.5 Qualitative Results

4.4 Discussions

4.4.1 Effectiveness of Each Component

4.4.2 Advantages Compared with Other Algorithms

4.4.3 Limitations and Future Work

4.5 Concluding Remarks

Chapter 5

Title of Your Third Technical Chapter

5.1 Introduction

Please briefly introduce the motivations, research questions and/or objectives, and indicate your main contributions of this chapter.

[Important] If the page break is not working normally, you can try the command *clearpage*.

5.2 Methodology

5.3 Experimental Results

5.3.1 Dataset

5.3.2 Implementation Details

5.3.3 Evaluation Metrics

5.3.4 Quantitative Results

5.3.5 Qualitative Results

5.4 Discussions

5.4.1 Effectiveness of Each Component

5.4.2 Advantages Compared with Other Algorithms

5.4.3 Limitations and Future Work

5.5 Concluding Remarks

Chapter 6

Title of Your Fourth Technical Chapter or The Application

6.1 Introduction

Please briefly introduce the motivations, research questions and/or objectives, and indicate your main contributions of this chapter.

[Important] If the page break is not working normally, you can try the command *clearpage*.

6.2 Methodology

6.3 Experimental Results

6.3.1 Dataset

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6.4 Discussions

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6.4.3 Limitations and Future Work

6.5 Concluding Remarks

Chapter 7

Conclusion

7.1 Main Contributions

Briefly review your main contributions of each chapter or the entire thesis.

7.2 Limitations and Suggestions for Further Improvements

Indicate the limitations and the possible directions of improvements.

7.3 Summary

Finally summarise your thesis.

Bibliography

[1] J. L. Hale, "More than 500 hours of content are now being uploaded to youtube every minute," https://www.tubefilter.com/2019/05/07/number-hours-video-uploaded-to-youtube-per-minute/, accessed September 19, 2019.

Appendix A

List of Abbreviations

CNN	Convolutional Neural Network
DCNN	Deep Convolutional Neural Network
RNN	Recurrent Neural Network
LSTM	Long-Short Term Memory
GAN	Generative Adversarial network
SAE	Stacked Auto Encoder
RCL	Recurrent Convolutional Layers
LRN	Local Response Normalization
FC	Fully Connection
RBM	Restricted Boltzmann Machine
CRF	Conditional Random Fields
SOD	Salient Object Detection
PCA	Principal Component Analysis
HOG	Histogram of Oriented Gradients
LBP	Local Binary Pattern
SVM	Support Vector Machine
CorLoc	Correct Localization
IoU	Intersection over Union
mAP	mean Average Precision
mAR	mean Average Recall
MAE	Mean Average Error
PR	Precision-Recall
TP	True Positive
TN	True Negative
FP	False Positive
FN	False Negative
KC	Kappa Coefficient
OE	Overall Error
CA	Classification Accuracy
UAV	Unmanned Aerial Vehicles
SAR	Synthetic Aperture Radar