My amazing PhD

PhD Candidate Name

This thesis is submitted in partial fulfilment of the
requirements for the degree of
Doctor of Philosophy.

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Computer Science

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Abstract

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To the people I love, thank you for your support.

Acknowledgements

I would like to acknowledge the time and effort of ...

I would like to thank ...

Special thanks go to ...

During my study I have been lucky to collaborate with ...

Finally I would like to thank ...

Declaration

Except where stated, all of the work contained in this thesis represents the original contribution of the author.

Chapter 3 describes contributions that involved collaborative worth with with ...

Parts of the research described in this thesis have previously published in:

- Paper details.
- Paper details.

Chapter 1

Introduction

1.1 Motivation

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1.2 Contributions

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1.3 Thesis structure

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Chapter 2

Background

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2.1 Subsection

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> Example Quote.

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An example of an equation environment is shown in Equation 2.1.

$$\mu = \sum_{i=1}^{n} \frac{x_n}{n} \tag{2.1}$$

The following block demonstrates a definition for the Markov property:

Definition 2.1. *A stochastic process* $\{X(t)|t = 0, 1, 2, \cdots\}$ *satisfies the Markov property if*

$$P\{X_{t+1} = s_{t+1}|X_t = s_t, X_{t-1} = s_{t-1}, \cdots X_1 = s_1, X_0 = s_0\} = P\{X_{t+1} = s_{t+1}|X_t = s_t\}$$

where $s_0, s_1, \cdots s_k$ *represent successive states of the process.*

Chapter 3

First Contribution

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Here is an example citation [1]. An example of a Figure is provided in 3.1 and a table is shown in Table 3.1. Finally an example algorithm in shown in Algorithm 1. When you revise text you can highlight it with the revise environment. A theorem and proof environment are demonstrated in Theorem 1.

Theorem 1. *Given a equation*

$$x = a \tag{3.1}$$

for some values ...

(i) First thing;

(ii) Second thing.

Proof. To prove (i), we note ... For part (ii), we ... □

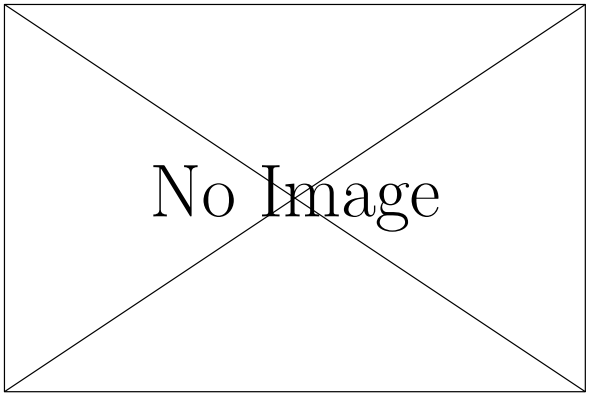

Figure 3.1: This is an example figure environment.

Table 3.1: This is an example table environment

from	to	parameter	$O^{\#}$	Point Estimate
s_1	s_2	y_1	4050	0.4054
s_1	s_4	y_2	5938	0.5944
s_1	s_8	y_3	2	0.0002
s_4	s_{10}	x_1	5723	0.5622
s_4	s_9	x_2	4	0.0004
s_7	s_{10}	k_2	6	0.0006

Algorithm 1 Holding-time modelling with parameters:
- *MinC* — minimum number of PHD clusters
- *MaxC* — maximum number of PHD clusters
- *MaxP* — maximum number of cluster phases
- *FittingAlg* — basic PHD fitting algorithm
- *MaxSteps* — maximum steps without improvement

```
1: function HoldingTimeModeling(α, τ'_{i1}, τ'_{i2}, ..., τ'_{in_i})
2:     sample ← (τ'_{i1}, τ'_{i2}, ..., τ'_{in_i})
3:     minErr = ∞
4:     while c ≤ MaxC ∧ steps ≤ MaxSteps do
5:         phd ← CBFitting(sample, c, FittingAlg, MaxP)
6:         if improvement ≥ α then
7:             improvement ← 0
8:         else
9:             steps ← steps + 1
10:        end if
11:        c ← c + 1
12:    end while
13:    return value
14: end function
```

Chapter 4

Second Contribution

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Chapter 5

Third Contribution

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Chapter 6

Conclusions

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Chapter 7

Future Work

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Appendix A

Appendix 1 Title

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List of References

[1] C. Paterson and R. Calinescu, "Accurate analysis of quality properties of software with observation-based Markov chain refinement," in *IEEE International Conference on Software Architecture*, pp. 121–130, 2017.