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by

[First name] [Last name]

Submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in Machine Learning

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I, [Candidate's Full Name], hereby declare that the thesis entitled [Thesis Title] is my own original work, except where specific reference is made to the contributions of others. This thesis contains material that has been published in collaboration with co-authors, as outlined below. A true and complete copy of the thesis, including any necessary revisions, has been submitted to and accepted by my examiners. Proper acknowledgment has been given throughout the thesis wherever the work of others has been referenced. I have also clearly indicated my individual contributions, as well as those made by co-authors, in the sections below.

The following table outlines the chapters that include content based on jointly-authored publications, along with relevant references. I confirm that I have contributed substantially to every result discussed in this thesis.

| Chapter | Contribution by Candidate | Contribution by Co-Authors | References |
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| Chapter 1 | [Details] | [Details] | [Details] |
| Chapter X | [Details] | [Details] | [Details] |

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The abstract should not exceed 500 words or 2 pages. The abstract should explain the domain of the thesis, identify topic area, include the hypothesis or problem statement, provide a general overview of the methodology, and identify research benefits and key findings and/or contributions.

Acknowledgements

I would like to thank ...

Lay Summary of Thesis (only for PhD students)

A brief summary of the research work intended for a general audience rather than experts or scholars. The language should be simple, free of jargon, and any technical terms that must be used should be clearly explained.

Dedication

This is dedicated to ...

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List of Abbreviations

AI Artificial Intelligence.

Chapter 1

Introduction

What does it mean to become a Ph.D.!

1.1 State of the Art

What is State of the Art?

1.2 An Overview

An overview of ...

Chapter 2

Background

This is Chapter 02! Author [1] presented.... Author [2] proposed... Author [3] implemented...

2.1 Methods of Computing

References

- I. Al Ridhawi, S. Otoum, and M. Aloqaily, "Generalizing ai: challenges and opportunities for plug and play ai solutions," *IEEE Network*, vol. 35, no. 1, pp. 372–379, 2020.
- [2] H. Elayan, M. Aloqaily, and M. Guizani, "Digital twin for intelligent context-aware iot healthcare systems," *IEEE Internet of Things Journal*, 2021.
- [3] Z. Iklassov, I. Sobirov, R. Solozabal, and M. Takáč, "Reinforcement learning approach to stochastic vehicle routing problem with correlated demands," *IEEE Access*, vol. 11, pp. 87958–87969, 2023.

APPENDICES

Appendix A Proof of Concept

Appendix B

Python Implementation

- **B.1** Libraries
- B.2 Code