



Interim Report/Mid-Thesis Structure

Data Science and AI/ML

Dr. Manoj Jayabalan

Structure

DEDICATION	v
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
LIST OF TABLES	xii
LIST OF FIGURES.....	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER 1: INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement.....	3
1.3 Aim and Objectives	5
1.4 Research Questions (IF ANY).....	5
1.5 Scope of the Study	6
1.6 Significance of the Study.....	6
1.7 Structure of the Study	8

Structure

CHAPTER 2: LITERATURE REVIEW 11

(Sample Sub-sections)

2.1	Introduction.....	11
2.2	Data Analytics in Healthcare	12
2.3	Data Mining in Diagnosis of Chronic Diseases.....	14
2.4	Data Mining in Prediction of Common Types of Cancer.....	16
2.5	Predictive Modeling in Breast Cancer Diagnosis on Different Datasets.....	17
2.5.1	WBC Datasets	18
2.5.2	SEER Breast Cancer Datasets	20
2.5.3	Other Breast Cancer Datasets.....	21
2.6	Visual Analytics in Healthcare	23
2.7	Related Research Publications	24
2.8	Discussion.....	26
2.9	Summary.....	29

Should have these two sections in all Chapters except in Chapter 1 & 6

Structure

Research Approach [OR] ←
Proposed Model [OR]
{Some Novel name}

CHAPTER 3: RESEARCH METHODOLOGY	30
(Sample Sub-sections)	
3.1 Introduction.....	30
3.2 Research Methodology	30
3.2.1 Data Selection.....	32
3.2.2 Data Pre-processing.....	33
3.2.3 Data Transformation.....	34
3.2.4 Interactive Visual Analytics	34
3.2.5 Class Balancing	36
3.2.6 Data Mining.....	37
3.2.7 Interpretation/Evaluation.....	38
3.3 Proposed Method (Classification)	41
.....	
.....	
.....	
3.4 Summary	49

Structure



REFERENCES.....	54
APPENDIX A: RESEARCH PLAN.....	67
APPENDIX B: RESEARCH PROPOSAL	79
APPENDIX C: ETHICS FORMS	81

Marking Scheme/Assessment Criteria

S. No	Criteria	Weightage
1	General Structure, Formatting, and Layout	10
2	Grammar and Spelling, Writing style	10
3	Introduction/rationale	15
4	Literature review	20
5	Description of materials and methods used	20
6	Focus and clarity of argument	15
7	Citation and references	10
	Total	100%

Tips!!!



In which order do you write your report?

6	←	ABSTRACT	
		CHAPTER 1: INTRODUCTION	1
5	←	1.1 Background of the Study	1
		1.2 Problem Statement	3
2	←	1.3 Aim and Objectives	5
		1.4 Research Questions (IF ANY)	5
		1.5 Scope of the Study	6
4	←	1.6 Significance of the Study	6
		1.7 Structure of the Study	8
1	←	CHAPTER 2: LITERATURE REVIEW	11
3	←	CHAPTER 3: METHODOLOGY	30

Structure of the Study

The structure of the thesis is as follows. Chapter 1 presents the background of the research in EHR, discuss the problem statements. The study aim and objectives are discussed in section 1.3. Section 1.4 presents the research contribution to the body of knowledge. The significance of the study provided in section 1.5

Chapter 2 presents the necessary theoretical background and highlights the problems given in Chapter 1 by systematically reviewing the access control model utilized in the EHR. Section 2.2 presents the discussion about the two ISO standards such as ISO 22600-1:2014 and ISO 29115-2013. The scope of the EHR, privacy and security challenges and the information system security mechanism articulated in section 2.3. The section 2.4 to present the gap, approaches, and explain the different techniques handled for the efficient risk analysis. The analysis of different user behavior learning methods in authentication is articulated in section 2.5. The emergency access procedures and accountability are given in section 2.6. The summary of the reviews is discussed and concluded in section 2.7.

Chapter 3 discusses the research design and the proposed framework. The research design given in section 3.2 describes the research process and introducing the validation approach to be carried out on the proposed model. Section 3.3 presents an overview of emerging access control workflow and validation of the model through extensive case scenarios with a combination of possibilities and various uncertainties. Finally, the analytical model using game theory to evaluate the residual risk. The summary of the chapter given in section 3.5.

Q & A

“Every project is an opportunity to learn, to figure out problems and challenges, to invent and reinvent.”

- David Rockwell

Read more at <https://www.brainyquote.com/topics/project-quotes>