

#### THESIS TITLE GOES HERE

by

LEVI C. NICKLAS

A Thesis Submitted to the Faculty of the

DEPARTMENT OF COMPUTER SCIENCE

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

In the Graduate College

Florida Polytechnic University

2021

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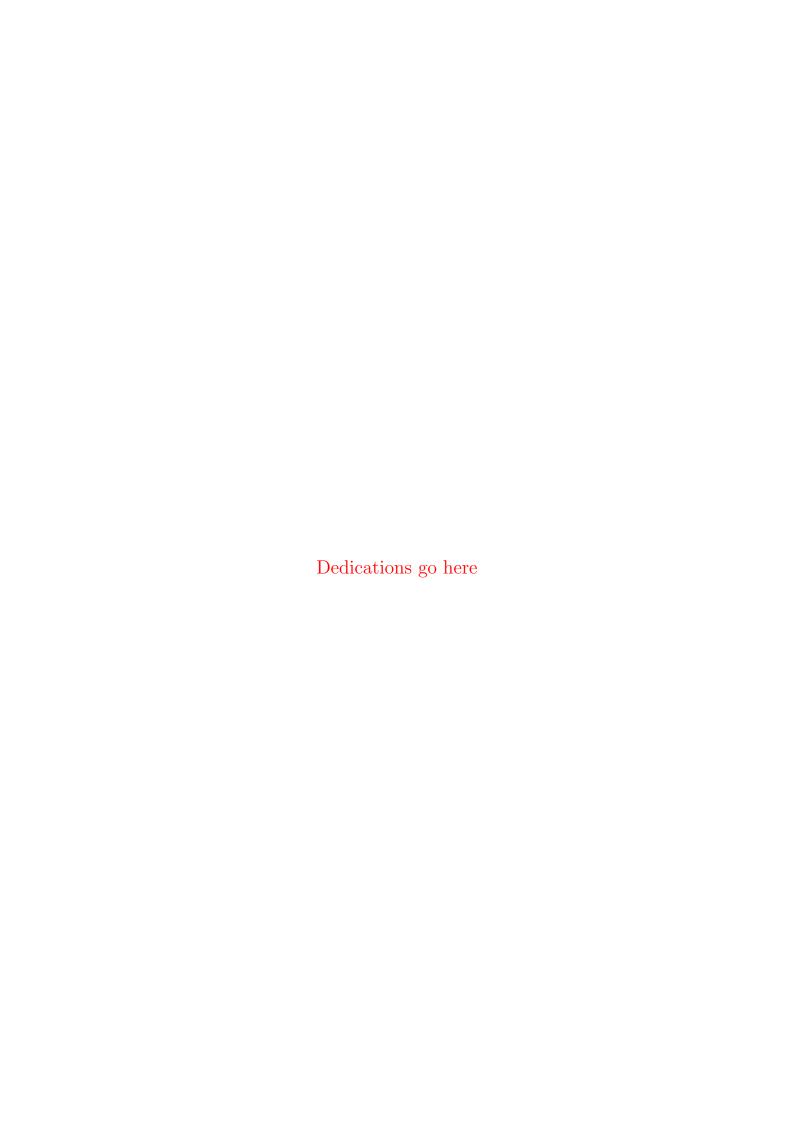
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Approved by:		
	Signature	$\underline{\mathbf{Date}}$
Dr. Reinaldo Sanchez-Arias		
(Committee Chair, Advisor)		
Dr. Grisselle Centeno		
(Committee Member)		
Dr. Harish Chintakunta		
(Committee Member)		
Dr. Tom Dvorske		
Vice Provost of Academic Affairs		
(Graduate Division)		·



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#### Abstract

Abstract goes here

### CHAPTER 1: INTRODUCTION

#### Introduction Chapter Here

Text mining is the process of extracting insight from text documents using computational and statistical methods. A common task in text mining is document clustering, where the natural language of the documents is reformatted and used to group documents into clusters of similar topics or text content. Popular methods to cluster text include k-means, hierarchical methods, and topic models. Most of these methods utilize term frequency-inverse document frequency measures or bag-of-words methods to do clustering, though these methods often divide words and thus may lose meaning, or context, surrounding the word of concern. In an effort to cluster documents while still preserving the relationship between words, text can be modeled with graphs which better preserve the context surrounding a word. Text can be represented with bigram graphs, where the edge between two vertices is the result of two words appearing adjacent in the text. This idea can be extended to more general n-grams, and further extended to skip-n-grams, resulting in even richer representations of the text. The similarity of two of graphical representations can then be assessed using modern methods called graph kernels. Graph kernels produce a measure of similarity between graphs, thus allowing for further machine learning to take place. With a measure of similarity between two graphs, we can do an assortment of clustering methods.

# Chapter 2: Literature Review

Literature review chapter goes here

#### 2.1 Introduction

Introduction section of this chapter goes here

#### 2.1.1 Subsection Testing

subection content goes here

# Chapter 3: Research work

Contents of research work go here.

#### 3.1 Introduction

Content of the introduction section

Rest of sections go here

# Chapter 4: Discussion of results

Discussions and results go here

# CHAPTER 5: CONCLUSION

Conclusion goes here.

# Chapter 6: Future Work

Future work goes here.

Appendices

## APPENDIX A: MY FIRST APPENDIX