



CS 5604 Information Storage and Retrieval  
Spring 2016  
Interim Report 1

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# Text Classification

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## **Abstract**

Text of the Abstract.



## **Acknowledgements**

I would like to express (whatever feelings I have) to:

- My supervisor
- My second supervisor
- Other researchers
- My family and friends



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# Chapter 1

## Introduction

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 1.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 1.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{1.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 1.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 1.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.



## Chapter 2

# Literature Review

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 2.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 2.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{2.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 2.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 2.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.

## Chapter 3

# Requirements, Design, And Implementation

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 3.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 3.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{3.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 3.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 3.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.

## Chapter 4

# User Manual

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 4.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 4.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{4.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 4.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 4.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.

## Chapter 5

# Developer Manual

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 5.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 5.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{5.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 5.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 5.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.



## Chapter 6

### Plan

Please see table 6.1 for the weekly breakdown of work.

**Table 6.1:** Weekly breakdown of work to be done.

Weeks	End Date	Tasks
Week 1	22 Jan.	Understanding the classification task
Week 2	29 Jan.	<ul style="list-style-type: none"> <li>• Understanding the classification task</li> <li>• Read about Hadoop streaming using python</li> </ul>
Week 3	5 Feb.	Start online tutorials about Hadoop and Apache Spark.
Week 4	12 Feb.	Continue online tutorials about Hadoop and Apache Spark.
Week 5	19 Feb.	<b>Phase 1 will include only tweets small data set:</b> <ul style="list-style-type: none"> <li>• Understanding the classification task</li> <li>• Read about Hadoop streaming using python</li> </ul>
Week 6	26 Feb.	<ul style="list-style-type: none"> <li>• Prepare training data using Solr as described in section</li> <li>• Build classifier using Apache Spark</li> </ul>
Week 7	4 March	<ul style="list-style-type: none"> <li>• Build classifier using Apache Spark</li> <li>• Get output data format from Solr team</li> </ul>
Week 8	11 March	Optimize classifier performance

Weeks	End Date	Tasks
Week 9-15	TBD	<p><b>Phase 2 will include tweets and web pages:</b></p> <ul style="list-style-type: none"> <li>• Contact collection management team to get the noise reduction techniques and apply it on the web pages.</li> <li>• Repeat the same process done on Phase 1 on web pages.</li> </ul> <p>We have ideas to further optimize the classifier performance:</p> <ul style="list-style-type: none"> <li>• Search for known approaches to select the most representative data sample for each collection.</li> <li>• Integrate hyper parameters optimization library [bergstra2013hyperopt] output with Spark.</li> </ul>



## Chapter 7

# Conclusion

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 7.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 7.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{7.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 7.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 7.2.1 This is a Subsection

and this

#### This is a Subsubsection

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.

## Chapter 8

# Future Work

Here is the introduction. The next chapter is chapter ??.

a new paragraph

### 8.1 Examples

You can also have examples in your document such as in example 8.1.

#### **Example 8.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{8.1}$$

You can adjust the colour and the line width in the `macros.tex` file.

## 8.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

### 8.2.1 This is a Subsection

and this

**This is a Subsubsection**

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a sub-subparagraph?

I think that a summary of this exciting chapter should be added.



## **Appendix A**

### **Appendix A name**

Here is the first appendix