#### Your Great Title For Your Thesis

#### A THESIS SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL OF THE UNIVERSITY OF MINNESOTA BY

Pete Willemsen

# IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE

Professor Advisor Name

September 2016



### Acknowledgements

Some acks are nice.

#### Dedication

Your dedication goes here.

#### Abstract

This thesis examines the use of interactive immersive displays for exploiring urban design data. Exploratory interfaces that utilzes human center algorithms will convey more information.

# **Contents**

Contents					
Li	st of T	Tables	vi		
Li	st of l	Figures	vii		
1	Intr	oduction	1		
2	Bac	kground	2		
	2.1	Background	2		
		2.1.1 Robot Interfaces	2		
	2.2	Previous Work	2		
3	Imp	lementation	3		
	3.1	First section	3		
	3.2	Initial Section	3		
		3.2.1 Subsection One	4		
		3.2.2 Subsection Two	4		
		3.2.3 Subsection Three	4		
	3.3	New Section For Next Important Topic	4		
		3.3.1 Algorithm Initialization	4		

	3.3.2	Atomic Operations	4
	3.3.3	Programming Style	5
4	Results		6
5	Conclusions		8
A	Appendix A		9
Re	ferences		10

# **List of Tables**

4.1	Illustrates	the	relationship	between	variables	and	the	related	experiment		
	conditions									,	-

# **List of Figures**

3.1	Clear and concise figure captions are important to write. This one illustrates	
	the cycle of a graph	3
4.1	Good data	6

## 1 Introduction

It's always good to introduce your (1) problem, (2) why it is interesting, (3) what you did, and (4) roughly, how well did it work. You might even have citations in here, as in this paper [3].

# 2 Background

### 2.1 Background

In this work, we investigate human computer interaction.

#### 2.1.1 Robot Interfaces

In seminar today, we looked for papers on the ACM Digital Library. The following paper is about virtual reality [2].

Just found another paper on robotics **TODO**: READ Soon! [1]

#### 2.2 Previous Work

In seminar today, we looked for papers on the ACM Digital Library. The following paper is about virtual reality [2].

Found another paper... think the tile has VRGP in it... make sure to read.

### 3 Implementation

#### 3.1 First section

You may need a nice figure, which you can algorithmically render using the Tikz package. You should really check out the Texample web site where several nice tikz examples are provided (http://www.texample.net/tikz/examples/all/).

### 3.2 Initial Section

- What language am I doing this in?
- What is the question the urban p[lanner want solved?

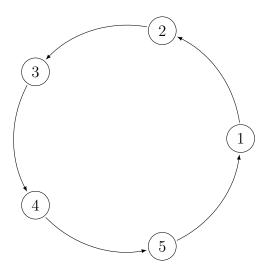


Figure 3.1: Clear and concise figure captions are important to write. This one illustrates the cycle of a graph.

- 1. What languge am I doing this in?
- 2. What is the question the urban p[lanner want solved?
- 3. new item
  - new 1
  - new 2

A graph rendered with the Tikz package is shown in Figure 3.1.

#### 3.2.1 Subsection One

#### 3.2.2 Subsection Two

#### 3.2.3 Subsection Three

### 3.3 New Section For Next Important Topic

#### 3.3.1 Algorithm Initialization

#### 3.3.2 Atomic Operations

You may even need code in your thesis. Here is a way to nicely include code with LATEXusing the listings package.

```
for (unsigned int idx=0; idx<maxSize; idx++) {
  atomic_add( idx );
}</pre>
```

### 3.3.3 Programming Style

**Explaining Fine Detail Here** 

**TODO**: Make sure to finish this!

**Last Subsection** 

### 4 Results

Your results. This worked great. Here's a plot to show how great it worked.

**TODO**: Need to get results!!!! Make sure to finish this!

We can reference the plot in Figure 4.1. Also, it's sometimes nice to include tables.

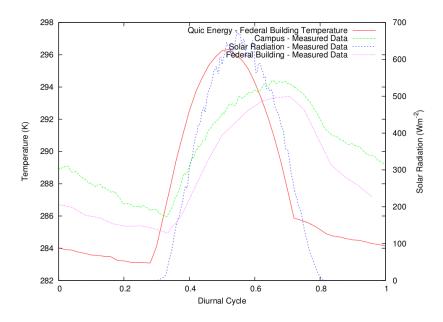


Figure 4.1: Good data.

Variable	Condition 1	Condition 2
arc	1.796	0.304
boo	3.112	0.411
gar	4.344	0.629

Table 4.1: Illustrates the relationship between variables and the related experiment conditions.

# 5 Conclusions

How can you wrap this up?

# A Appendix A

Do you need an Appendix? You can include several of them if you want.

### References

- [1] D. Drascic, P. Milgram, and J. Grodski. "Learning effects in telemanipulation with monoscopic versus stereoscopic remote viewing". In: *Systems, Man and Cybernetics,* 1989. Conference Proceedings., IEEE International Conference on. Nov. 1989, 1244–1249 vol.3. DOI: 10.1109/ICSMC.1989.71502.
- O. Kreylos, G. Bawden, T. Bernardin, M. I. Billen, E. S. Cowgill, R. D. Gold, B. Hamann, M. Jadamec, L. H. Kellogg, O. G. Staadt, and D. Y. Sumner. "Enabling Scientific Workflows in Virtual Reality". In: *Proceedings of the 2006 ACM International Conference on Virtual Reality Continuum and Its Applications*. VRCIA '06. Hong Kong, China: ACM, 2006, pp. 155–162. ISBN: 1-59593-324-7. DOI: 10.1145/1128923.1128948. URL: http://doi.acm.org/10.1145/1128923.1128948 (cit. on p. 2).
- [3] K. N. Takashi Asawa Akira Hoyanob. "Thermal design tool for outdoor spaces based on heat balance simulation using a 3D-CAD system". In: *Building and Environment* 43.1 (Dec. 2007), pp. 2112–2123 (cit. on p. 1).