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#### 1 Abstract

Insert the abstract here. The abstract should summarize your research in clear and concise language. You should write your abstract with the idea that it may be the only section that will actually be read and the sole representation of your research.

Some primary factors that you should consider for the abstract:

• Motivation: Why do we care?

• Problem statement: What are you trying to address?

• Approach: How will you address the problem?

• Results: What is the answer or expected answer?

• Conclusions: What are the implications?

#### 2 Introduction

Introduction to the research including background, current research in the area, etc.

## 3 Purpose or Hypothesis

The purpose or hypothesis of the research. This is a more general overview of your research.

## 4 Research Question(s)

Insert your specific and answerable research question(s) here. Bullet points are OK. The idea is to be as clear as possible.

## 5 Importance of the Project

- The importance of the research including what makes your research unique and/or the specific contribution you seek to make.
- Even more important to your professor: Why is it worth spending an entire semester on this?

## 6 Method of Approach

The research methodology you will employ including location, data collection techniques, analysis techniques, etc.

#### 7 Related Work

Here is a good place to summarize other work and make appropriate references and citations. Here is an example from a paper that Joe Kaylor and I are working on right now.

In the past several years, many FUSE (Szeredi 2005) based application filesystems have been built to act as clients for popular web services such as Flickr, IMAP email services, Amazon S3, and several others. In our own research, we leveraged our existing NOFS framework to implement RestFS (Kaylor, Läufer, and Thiruvathukal 2011), a dynamically reconfigurable filesystem for exposing remote restful resources as a local filesystem. With RestFS, we were able to demonstrate an architecture that could map several different restful web services such as Yahoo! Placefinder, Flickr, and Twitter into local filesystem representations. We were able to further demonstrate how these web services and local software components could be composed locally and re-exposed as restful web services.

#### 8 Work Plan

This is arguably the most important part of the proposal as it shows *how* you will conduct your study. As such, it should be as realistic as possible and very detailed. For my proposal I broke it down by what I intended to accomplish each month.

This is just an example:

#### August

1. Determine survey questions

#### October

- 1. IRB request 2 months
- 2. Meet with committee

#### November

- 1. Mail surveys
- 2. Data Entry
- 3. Submit abstract for professional conference paper or poster presentation

#### December

1. Data Entry

#### January

1. Data analysis and write-ups

- 2. Begin writing thesis draft
- 3. Brown bag presentation to department

### February - April

- 1. Continue writing thesis and revise when necessary
- 2. Submit draft to committee for review

#### May

1. Final draft complete by end of May with committee revisions

## 9 Budget

This should be as detailed as possible but simple to understand. A simple table with line items should suffice. Any descriptions or justifications can be done below the table.

This might not be applicable to COMP 336-436 projects. If you have any requirements in this regard, however, it is good to list them. In some cases the department can find funds to support project needs, especially for highly meritorious projects.

#### 10 References

Kaylor, Joe, Konstantin Läufer, and George K. Thiruvathukal. 2011. RestFS: resources and services are filesystems, too. *Proceedings of the Second International Workshop on RESTful Design*. New York, NY, USA: ACM. http://doi.acm.org/10.1145/1967428.1967439.

Szeredi, M. 2005. Filesystem in Userspace. feb. http://fuse.sourceforge.net.