Computing Science and Mathematics
University of Stirling

Contextual Understanding for Intent Detection on an Embedded System

Daniel Rooney
2535156

Supervisor: Dr. Deepayan Bhowmik

Dissertation Outline

Month Year

Chapter 1

Introduction

Outline relatively briefly the problem that you are tackling.

Chapters are entered using the $\backslash chapter$ command; they start on a new page. Ordinary text is presented in 11 point Computer Modern, single-spaced, pages. In general, use the default spacing that headings and paragraphs give you. If you need to use quotes, preferably use single curly quotes '...'.

Italics text uses the $\backslash textit$ command, while **bold text** uses the $\backslash textbf$ command. Chapters, sections, etc. are identified by the $\backslash label$ command, and are referenced by the $\backslash ref$ command (e.g. chapter 4).

1.1 Background and Context

Describe the problem that you are tackling in more detail. This is likely to be a non-technical section and should be easily understood by a general reader. Motivate why the problem is interesting, and a solution would be useful. Sections are entered using the $\backslash section$ command.

1.2 Scope and Objectives

Define the scope and objectives of your project. Define the expected results and how others will gain from the work.

Chapter 2

State-of-The-Art

Discuss the work of others in the same area as your project. Show critical awareness of what others have done, and how you hope to extend or complement existing capabilities.

It is important to write a *critical* literature review that identifies gaps in current solutions and that clearly shows how the project was driven to address these gaps. This chapter should therefore feed into well-defined requirements for the project. Avoid a banal description of related work that does not carefully analyse its strengths and weaknesses.

This section may also include a discussion of relevant technologies and a critical analysis of which technologies you plan to use for the project.

Give references to other work by using citations like [4]. Use the \cite command to cite references. Books [1], standards [2], reports [3], journal articles [6], conference papers [4], and web pages [5] are conventionally presented in slightly different ways. If a web page does not have a date, you should give the date on which you consulted it.

Citations are created with a *thebibliography* environment and \bibitem commands in a '.bbl' file. Unless you are willing to invest time in creating BibTEX bibliographies, you can do this by hand.

Chapter 3

Problem description and analysis

This section should give a description and analysis of the problem to be solved. This might include a requirements capture exercise, possibly involving the consultation of potential users and identifying use cases or scenarios. Demonstrate how you are performing the project as a computing professional (i.e. application of systematic techniques, awareness of relevant professional issues).

3.1 First Section

Subdivide your text into sections with the $\backslash section$ command.

3.1.1 First Subsection

If necessary, also use subsections. Subsections are entered using the $\backslash subsection$ command.

First Subsubsection

If you really need subsubsections, enter these using the $\backslash subsubsection$ command.

Figures are created with the *figure* environment, while tables are created with the *table* environment. They are identified by the $\backslash label$ command, and are referenced by the $\backslash ref$ command. Graphics are inserted with the $\backslash graphic$ command. Captions are entered using the $\backslash caption$ command. As an example of a figure, consider figure 3.1.

The native format for LATEX graphics is EPS (Encapsulated PostScript). Graphical editors are usually capable of producing EPS. When outputting to PDF (Portable Document Format), the native graphics format is also PDF. Conversion of EPS to PDF is supported by a number of TeX toolsets.
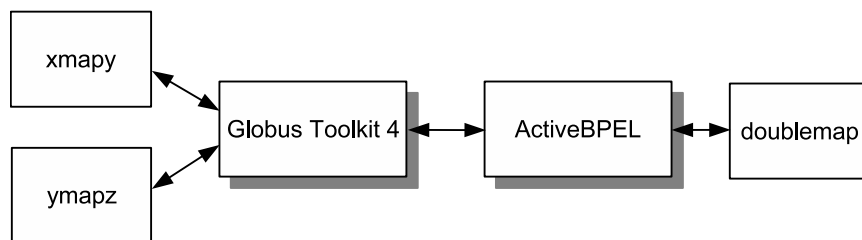
Figure 3.1: Highly Technical Diagram

Chapter 4

Project Plan

Give an updated plan for the remainder of the project. This should identify the remaining pieces of work (deliverables) and when you plan to complete them. In particular, describe what you will demonstrate when the final report is due.

References

[1] D. Greene and P. C. Williams. *Linear Accelerators for Radiation Therapy.* IOP Publishing Ltd., Bristol and Philadelphia, 1997.

[2] ISO/IEC. *Information Processing Systems – Open Systems Interconnection – LOTOS – A Formal Description Technique based on the Temporal Ordering of Observational Behaviour.* ISO/IEC 8807. International Organization for Standardization, Geneva, Switzerland, 1989.

[3] J. Jacobson and O. Andersen. Software controlled medical devices. Technical Report SP-Rapport 1997:11, European Network of Clubs for Reliability and Safety of Software, Apr. 1997. ISBN 91-7848-669-6.

[4] Ji He and K. J. Turner. Specification and verification of synchronous hardware using LOTOS. In J. Wu, S. T. Chanson, and Q. Gao, editors, *Proc. Formal Methods for Protocol Engineering and Distributed Systems (FORTE XII/PSTV XIX)*, pages 295–312, London, UK, Oct. 1999. Kluwer Academic Publishers.

[5] K. J. Turner. World-wide Environment for Learning LOTOS. *http://www.cs.stir.ac.uk/well/*, June 2000.

[6] K. J. Turner. Representing and analysing composed web services using CRESS. *Network and Computer Applications*, 30(2):541–562, Apr. 2007.