CMP6200
Individual Undergraduate Project
2024 - 2025

A2 - Literature Review and Methods

University Artifically Intelligent Assistant

Course: Computer & Data Science
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Contents

Report Introduction

1.1 Aims and Objectives

This project aims to aid new and existing students alike while they are attending university with helpful information about the university itself, such as university societies, locations/campuses, and policies through the medium of a digital chatbot companion to converse with. Its objectives are to:

- Develop a chatbot capable of accurately answering user queries related to university buildings, policies, and societies with a minimum 95% accuracy rate.

- Conduct a thorough literature review on the surrounding topics, namely AI, LLMs and NLP.

- Create effective documentation for all stages of development, highlighting challenges faced during the process.

- Manage time effectively to ensure all project milestones are met on a consistent and regular timeframe.

- Evaluate the effectiveness of an AI assistant on university student acclimatization.

1.2 Literature Search Methodology

> **Uncertainty**
>
> I assumed that I should include the exact search terms including special characters like asterisks as well as AND + OR queries, but I'm not sure how to best display that in this document. I'm also aware that a few of these are parts of each other (Deep learning and NLP for example) though I would surely need to research both anyway?

All searches performed will be on papers published during or after 2020, due to the constantly evolving fields my project is based on.

- Artifical Intelligence OR AI
    - AND Ethics
        * AND Bias
        * AND Fairness
        * AND Privacy
- Chatbot OR Digital assistant
- Large Language Model* OR LLM
    - AND fine tuning
- Natural Language Processing OR NLP
    - Intent recognition
    - Entity extraction
- Deep learning
- User Experience OR UX
    - AND Design
- Information retrieval

Literature Review

2.1   Themes

2.2   Review of Literature

2.2.1   Review

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2.2.2   Theory

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2.3   Summary
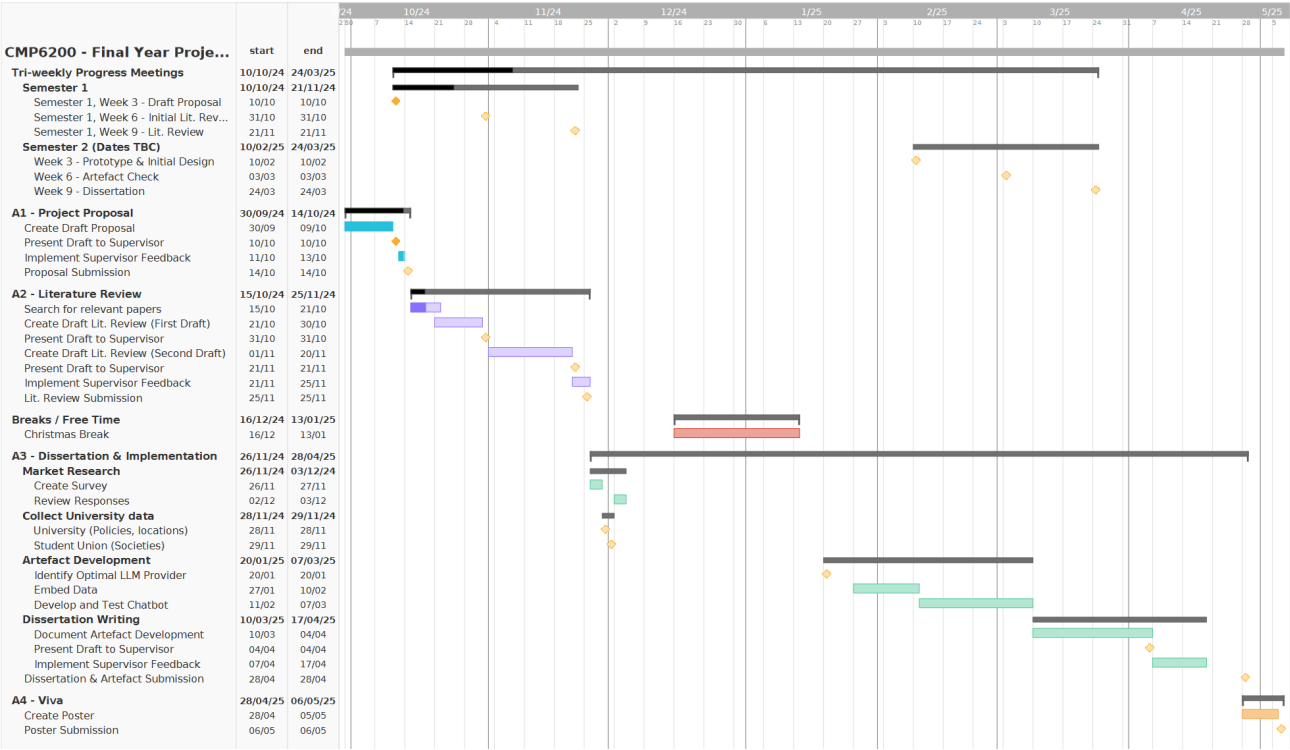
Appendix

3.1   Gantt Chart

Figure 3.1: A conceptual Gantt chart of a development timeline.

References

References and bibliographies aren't the same thing. Your references are your directly cited sources, whereas your bibliography is everything you consulted for information, even if you didn't directly cite it.

`https://en.wikibooks.org/wiki/LaTeX/Bibliographies_with_biblatex_and_biber#Splitting_`
`into_different_topics`

That link shows how you can add a "keyword" entry to the bibliography entries. In doing so, you could add a "refs" keyword for your references, and a "bib" for your bibliography.