Logo

Description automatically generated

FINAL CAPSTONE PROJECT TITLE

by

Student’s name (first, then last name)

(If there are more than two students, add student initials)

THE FPT UNIVERSITY HO CHI MINH CITY

FINAL CAPSTONE PROJECT TITLE

by

Student’s name (first, then last name)1

Supervisor: Prof./Ph.D./ M.S. Firstname Lastname \*

(1If there are more than two students, add student initials)

(\* If there are multiple supervisors, add supervisor initials)

A final year capstone project submitted in partial fulfillment of the requirement

for the Degree of Bachelor of Artificial Intelligent in Computer Science

DEPARTMENT OF ITS

THE FPT UNIVERSITY HO CHI MINH CITY

August 2022 (Month year)

ACKNOWLEDGMENTS

In this section, you can acknowledge any support given which is not covered by the author contribution. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

AUTHOR CONTRIBUTIONS

The section is a short-written description about the students. The paragraph also provides their specifying individual contributions. The following statements should be used “Conceptualization, X.X. and Y.Y.; methodology, X.X.; software, X.X.; validation, X.X., Y.Y. and Z.Z.; formal analysis, X.X.; investigation, X.X.; resources, X.X.; data curation, X.X.; writing—original draft preparation, X.X.; writing—review and editing, X.X.; visualization, X.X.; supervision, X.X.; project administration, X.X.; funding acquisition, Y.Y. All authors have read and agreed to the Final Capstone Project document.”

ABSTRACT

A single paragraph of about 400 words maximum. For capstone projects, abstracts should give a pertinent overview of the work. We strongly encourage students to use the following style of structured abstracts, but without headings: (1) Background: Place the question addressed in a broad context and highlight the purpose of the study; (2) Methods: briefly describe the main methods or treatments applied; (3) Results: summarize the article’s main findings; (4) Conclusions: indicate the main conclusions or interpretations. The abstract should be an objective representation of the article and it must not contain results that are not presented and substantiated in the main text and should not exaggerate the main conclusions.

**Keywords:** keyword 1; keyword 2; keyword 3 (List three to ten pertinent keywords specific to the article yet reasonably common within the subject discipline.)

CONTENTS

ACKNOWLEDGMENTS page number

AUTHOR CONTRIBUTIONS page number

ABSTRACT page number

CONTENTS page number

List of Figures page number

List of Tables page number

List of Abbreviation page number

1. INTRODUCTION page number

1.1 Subsection page number

1.1.1 Subsubsection pagenumber

1.1.2 Subsubsection pagenumber

1.2 Subsection page number

1.2.1 Subsubsection pagenumber

1.2.2 Subsubsection pagenumber

**2.** RELATED WORK page number

**3**. PROJECT MANAGEMENT PLAN page number

**4**. MATERIALS AND METHODS page number

**5.** RESULTS page number

**6.** DISCUSSIONS page number

**7.** CONCLUSIONS page number

**8.** REFERENCES page number

**9.** APPENDIX page number

List of Figures

(This section is used to list the name of the figures of the thessis as described below)

4.2 Figure 1. This is a figure. Schemes follow the same formatting. 12

4.2 **Figure 2**. This is Figure 2 13

List of Tables

(This section is used to list the name of the Table of the thesis as described below)

4.2 Table 1. This is a table... 13

4.2 Table **2**. This is Table 2 14

**Appendix** Table 3.Project plan 19

**Appendix** Table 4.Source codes and data 20

1. **HOW TO USE THIS TEMPLATE**

The template details the sections that can be used in a preparing a final capstone project document. Note that each section has a corresponding style. Sections that are not mandatory are listed as such. Remove this section and start section numbering with 1. **In general, the final capstone project documents are 40-90 pages**.

1. INTRODUCTION

The introduction should briefly place the study in a broad context and highlight why it is important. It should define the purpose of the work and its significance. Please highlight controversial and diverging hypotheses when necessary. Finally, briefly mention the main aim of the work and highlight the principal conclusions. This part of the thesis should be 4-5 pages but not less than 3 pages.

2. RELATED WORK

The current state of the research field should be carefully reviewed and key publications cited (at least 10 ref.). As far as possible, please keep the introduction comprehensible to scientists outside your particular field of research. References should be numbered in order of appearance and indicated by a numeral or numerals in square brackets—e.g., [1] or [2,3], or [4–6]. See the end of the document for further details on references. This part of the thesis should be 3-4 pages but not less than 2 pages

3. PROJECT MANAGEMENT PLAN

[Provide the overall project objective description and then the specific target metrics of your project in term of quality, time, and cost (allocated effort distribution for project activities]

Table 3.Project plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task name | Priority | Owner | Start date | End date | Status | Issues |
| Find documents | High | Student A | … | … | In progress | … |
| Review papers | High | … | … | … | … | … |
| Review and analyze public dataset | High | … | … | … | … | … |
| Collect and label data | High | … | … | … | … | … |
| Experiment | Medium | … | … | … | … | … |
| Compare results | Low | … | … | … | … | … |
| Writing appendix | Medium | … | … | … | Pending | … |
| Future work | High | … | … | … | … | … |

The supporting information can be downloaded at: www.abc.com/xxx/s1, Figure S1: title; Table S1: title; Video S1: title. By the following table

Table 4.Source code and data

|  |  |  |
| --- | --- | --- |
| Items | Link | Description |
| Data | Link | … |
| Source code | Link | … |
| Source code | Link | … |

4. MATERIALS AND METHODS

The Materials and Methods should be described with sufficient details to allow others to replicate and build on the results of the thesis. Please note that the final version of your manuscript implicates that you must make all materials, data, computer code, and protocols associated with the publication available to readers. Please disclose at the submission stage any restrictions on the availability of materials or information. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited.

Research manuscripts reporting large datasets that are deposited in a publicly available database should specify where the data have been deposited and provide the relevant accession numbers. If the accession numbers have not yet been obtained at the time of submission, please state that they will be provided during the reviewing process.

5. RESULTS

This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

5.1. Subsection

5.1.1. Subsubsection

Bulleted lists look like this:

* First bullet;
* Second bullet;
* Third bullet.

Numbered lists can be added as follows:

1. First item;
2. Second item;
3. Third item.

The text continues here.

5.2. Figures, Tables and Schemes

All figures and tables should be cited in the main text as Figure 1, Table 1, etc.

Text, letter

Description automatically generated

Figure 1. This is a figure. Schemes follow the same formatting.

**Table 1.** This is a table. Tables should be placed in the main text near to the first time they are cited.

|  |  |  |
| --- | --- | --- |
| Title 1 | Title 2 | Title 3 |
| entry 1 | data | data |
| entry 2 | data | data 1 |

1 Tables may have a footer.

The text continues here (Figure 2 and Table 2).

|  |  |
| --- | --- |
| C:\Users\martin\Downloads\testFigure.tif | C:\Users\martin\Downloads\testFigure.tif |
| (a) | (b) |

Figure 2**.** This is Figure 2. Schemes follow another format. If there are multiple panels, they should be listed as: (a) Description of what is contained in the first panel; (b) Description of what is contained in the second panel. Figures should be placed in the main text near to the first time they are cited. A caption on a single line should be centered.

Table 2.This is Table 2. Tables should be placed in the main text near to the first time they are cited.

|  |  |  |  |
| --- | --- | --- | --- |
| Title 1 | Title 2 | Title 3 | Title 4 |
| entry 1 \* | data | data | data |
| data | data | data |
| data | data | data |
| entry 2 | data | data | data |
| data | data | data |
| entry 3 | data | data | data |
| data | data | data |
| data | data | data |
| data | data | data |
| entry 4 | data | data | data |
| data | data | data |

\* Tables may have a footer.

3.3. Formatting of Mathematical Components

This is example 1 of an equation:

|  |  |
| --- | --- |
| a = 1, | (1) |

Theorem-type environments (including propositions, lemmas, corollaries etc.) can be formatted as follows:

THEOREM 1. *Example text of a theorem. Theorems, propositions, lemmas, etc. should be numbered sequentially (i.e., Proposition 2 follows Theorem 1). Examples or Remarks use the same formatting, but should be numbered separately, so a document may contain Theorem 1, Remark 1 and Example 1.*

The text continues here. Proofs must be formatted as follows:

*PROOF OF THEOREM 1.* Text of the proof. Note that the phrase *“of Theorem* 1” is optional if it is clear which theorem is being referred to. Always finish a proof with the following symbol. □

The text continues here.

Table 3.Project plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task name | Priority | Owner | Start date | End date | Status | Issues |
| Find documents | High | Student A | … | … | In progress | … |
| Review papers | High | … | … | … | … | … |
| Review and analyze public dataset | High | … | … | … | … | … |
| Collect and label data | High | … | … | … | … | … |
| Experiment | Medium | … | … | … | … | … |
| Compare results | Low | … | … | … | … | … |
| Writing appendix | Medium | … | … | … | Pending | … |
| Future work | High | … | … | … | … | … |

The supporting information can be downloaded at: www.abc.com/xxx/s1, Figure S1: title; Table S1: title; Video S1: title. By the following table

Table 4.Source code and data

|  |  |  |
| --- | --- | --- |
| Items | Link | Description |
| Data | Link | … |
| Source code | Link | … |
| Source code | Link | … |

5.3. Interface with other system

[Provides methods to communicate with other systems. For example: packages , classes library, API, ….]

6. DISCUSSION

Authors should discuss the results and how they can be interpreted from the perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted.

7. CONCLUSIONS AND PERSPECTIVES

This section is used for Summarize your report in one or two paragraphs. Which methods or algorithms achieves the best performance? Why do you think that some algorithms worked better than others? Is there any limitation and drawback of your works? If you had more time and more computational resources, or more team members, what aspects you should propose and explore to improve the performance?

**CONFLICTS OF INTEREST:** Declare conflicts of interest or state “The authors declare no conflict of interest.” Authors must identify and declare any personal circumstances or interest that may be perceived as inappropriately influencing the representation or interpretation of reported research results. Any role of the funders in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript; or in the decision to publish the results must be declared in this section. If there is no role, please state “The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results”.

8. Appendix

The appendix is an optional section that can contain details and data supplemental to the main text—for example, explanations of experimental details that would disrupt the flow of the main text but nonetheless remain crucial to understanding and reproducing the research shown; figures of replicates for experiments of which representative data is shown in the main text can be added here if brief, or as Supplementary data. Mathematical proofs of results not central to the document can be added as an appendix.

All appendix sections must be cited in the main text. In the appendices, Figures, Tables, etc. should be labeled starting with “A”—e.g., Figure A1, Figure A2, etc.

Here is an example of Project plan, you can modify and add relevant information according to your project.

Table 3.Project plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Task name | Priority | Owner | Start date | End date | Status | Issues |
| Find documents | High | Student A | … | … | In progress | … |
| Review papers | High | … | … | … | … | … |
| Review and analyze public dataset | High | … | … | … | … | … |
| Collect and label data | High | … | … | … | … | … |
| Experiment | Medium | … | … | … | … | … |
| Compare results | Low | … | … | … | … | … |
| Writing appendix | Medium | … | … | … | Pending | … |
| Future work | High | … | … | … | … | … |

The supporting information can be downloaded at: www.abc.com/xxx/s1, Figure S1: title; Table S1: title; Video S1: title. By the following table

Table 4.Source code and data

|  |  |  |
| --- | --- | --- |
| Items | Link | Description |
| Data | Link | … |
| Source code | Link | … |
| Source code | Link | … |

9. REFERENCES

References must be numbered in order of appearance in the text (including citations in tables and legends) and listed individually at the end of the manuscript. We recommend preparing the references with a bibliography software package (Mendeley is highly recommended) to avoid typing mistakes and duplicated references. Include the digital object identifier (DOI) for all references where available.

Citations and references in the Supplementary Materials are permitted provided that they also appear in the reference list here.

In the text, reference numbers should be placed in square brackets [ ] and placed before the punctuation; for example [1], [1–3] or [1,3]. For embedded citations in the text with pagination, use both parentheses and brackets to indicate the reference number and page numbers; for example [5] (p. 10), or [6] (pp. 101–105).

1. Author 1, A.B.; Author 2, C.D. Title of the article. *Abbreviated Journal Name* **Year**, *Volume*, page range.
2. Author 1, A.; Author 2, B. Title of the chapter. In *Book Title*, 2nd ed.; Editor 1, A., Editor 2, B., Eds.; Publisher: Publisher Location, Country, 2007; Volume 3, pp. 154–196.
3. Author 1, A.; Author 2, B. *Book Title*, 3rd ed.; Publisher: Publisher Location, Country, 2008; pp. 154–196.
4. Author 1, A.B.; Author 2, C. Title of Unpublished Work. *Abbreviated Journal Name* year, *phrase indicating stage of publication (submitted; accepted; in press)*.
5. Author 1, A.B. (University, City, State, Country); Author 2, C. (Institute, City, State, Country). Personal communication, 2012.
6. Author 1, A.B.; Author 2, C.D.; Author 3, E.F. Title of Presentation. In Proceedings of the Name of the Conference, Location of Conference, Country, Date of Conference (Day Month Year).
7. Author 1, A.B. Title of Thesis. Level of Thesis, Degree-Granting University, Location of University, Date of Completion.
8. Title of Site. Available online: URL (accessed on Day Month Year).