

Final Project

Poster and Oral Presentation on Artificial Intelligence

SC310005 Artificial Intelligence
Khon Kaen Business School

(20 Points) AI Final Project

Please submit your AI project by providing its Title, Description, and Dataset through the Google Sheets link provided. Projects will be assigned on a first-come, first-served basis, ensuring that there are no duplicates.

<https://docs.google.com/spreadsheets/d/18tur5UXjUjxgegQziECyGpKikS-WqRwj2QNNIIYX9Bs/edit?usp=sharing>

** Scientific posters should be oriented exclusively in the **vertical position**.

** Recommend using a portrait **A0 layout**.

Motivation:

The final project in this AI course is designed to provide students with hands-on experience in applying artificial intelligence techniques to real-world problems. Through creating posters and delivering oral presentations, students will showcase their understanding of AI concepts and their ability to implement them effectively.

Assignment Objectives:

- To demonstrate the practical application of AI techniques.
- To enhance presentation and communication skills.
- To encourage collaboration and teamwork.
- To foster critical thinking and problem-solving abilities in the context of AI projects.

Objective:

The objective of this assignment is to evaluate students' comprehension and application of artificial intelligence methodologies through the creation and presentation of posters and oral presentations on AI projects.

Assignment Problem:

Students will design an AI project, create a poster, and deliver an oral presentation that effectively communicates the project's objectives, methodologies, results, and conclusions.

Tasks for Students:

- ☐ Choose a topic for your AI project, considering its feasibility and relevance to artificial intelligence.
- ☐ Design and implement your AI project, considering appropriate datasets, algorithms, and evaluation methods.
- ☐ Create a visually engaging poster that succinctly presents the key aspects of your AI project.
- ☐ Prepare a clear and concise oral presentation to accompany your poster, highlighting the significant findings and insights from your project.

Guidelines for Poster and Oral Presentation:

- ☐ Title: Clearly state the purpose and scope of your AI project (e.g., What, How, Dataset).
- ☐ Authors List and Affiliations: Include the names of all group members and their affiliations.
- ☐ Introduction, Background, or Rationale: Provide context and justification for your AI project.
- ☐ Brief Overview of Methods: Describe the AI techniques and methodologies employed in your project.
- ☐ Results and Discussion: Present the outcomes of your project and discuss their implications.
- ☐ Conclusion: Summarize the key findings and contributions of your AI project.
- ☐ Criteria to Score Poster and Oral Presentation:

Clarity and Organization:

- ☐ **(5 Points)** Is the poster well-organized and easy to understand?
- ☐ **(5 Points)** Content Quality: Does the presentation effectively convey the project's objectives, methods, results, and conclusions?
- ☐ **(5 Points)** Oral Presentation Skills: Are the presenters articulate, confident, and engaging during the oral presentation?
- ☐ **(5 Points)** Response to Questions: Can the group members address questions regarding their AI project confidently and accurately?

This text could be the main title of your research

Mario Brosello¹, Bowser Baddy², Shoe Backs³

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Introduction

The introduction of a research paper should provide a brief overview of the study's purpose, background, and significance. This can be achieved by:

- providing some background information on the topic
- clearly stating the research question or hypothesis
- explaining why the research is important.

The introduction should be concise, informative, and engaging to capture the reader's attention.

Finally, outline the objectives of your research. This should be a clear statement of what you are hoping to achieve through your research, and should help to guide the reader through the rest of the paper.

Methods

PROVIDE AN OVERVIEW
Begin the methods section with an overview of the experimental design and methods used in your study. This should help the reader understand the overall approach taken in your research.

DETAILS
Provide details of the experimental design and methods used in your study. This should include information about the participants, materials, procedures, and measures.

ANALYSIS
Describe the statistical analysis used in your study. This should include information about the tests used, the assumptions made, and the results obtained.

THIS COULD BE A SECTION OF THE METHODS
People often ask the participant or subjects used in your study, including relevant demographic information such as age, sex, and any other relevant characteristics.

Results

What answer was found to the research question, what did the study find? What the tested hypothesis that it explains what the authors found following the method previously suggested. You should present your results as objectively as possible. Present the data in a logical and organized way, using tables, graphs, and charts as appropriate. Make sure to label all figures clearly and provide a brief caption that explains what is being shown.

Use visual aids such as graphs, charts, or tables to present your data. These visual aids should be clearly labeled and easy to understand.

Don't forget to quantify the results. When presenting numerical data, be sure to provide the relevant statistics, such as means, standard deviations, or p-values.

Figure name
Caption: Brief description of the figure.

Avoid interpretation in the results section. It's important to present the data objectively and avoid interpreting the results. That should be left for the discussion section. Focus on the data visualization.

First chart heading
Caption: Brief description of the first chart.

Second chart heading
Caption: Brief description of the second chart.

Overall, the results section should be organized, clear, and concise, presenting the most important findings in a way that is accessible and easy to understand. Using visuals can be very effective in presenting complex data, and highlighting key findings can help to draw the reader's attention to the most important information.

Provide context! For each result presented, provide context by explaining what it means and how it relates to the research question or hypothesis being investigated.

It's important to focus on presenting the data objectively and without interpretation. The goal is to present the findings clearly and accurately, without drawing conclusions or making recommendations. Save any interpretation of the results for the discussion section. Finally, don't forget that "in science a word is worth a thousand words", so write for just one "Word is memorable with results and engage your audience!"

Discussion

Begin the discussion section by summarizing the results of the study. This should include a brief overview of the main research question and objectives.

Summarize the key findings of your study in a few sentences. Avoid repeating the results verbatim. Discuss the implications of your findings and what they mean in the context of the research question or hypothesis being investigated.

DISCUSS AS A READER IN THE FIELD
Compare your findings with those from previous research in the field. Discuss similarities, differences, and any inconsistencies or contradictions.

THIS COULD BE ANOTHER SECTION OF THE DISCUSSION
Discuss the limitations of your study, including any potential sources of error or bias. Be honest and transparent about the limitations of your research, but also explain how they can be addressed in future studies.

Discuss the implications of your findings for theory and practice in the field. Explain how your research could potentially be applied in real-world contexts. You can also state any potential future research directions.

Conclusion

Summary of your key conclusions - reiterate the main findings.
 The implications of the research for theory and practice. It could go along these lines:
 In conclusion, this study highlights the importance of X in understanding Y and provides a foundation for future research in this area.

The findings suggest that it has a significant effect on Z, and that this effect may be mediated by (specify possible mechanism). The study has some limitations, but the implications of the findings are significant for clinical practice and public health policy. Overall, this study contributes to the knowledge base in the field and may pave the way for further discoveries.

References

- Brosello, M., & Baddy, B. (2020). The Effects of Shining Green Teas on Human Longevity. *Journal of Medical Research*, 1(2), 15-25.
- Boydell, L., & Lane, H. P. R. (2019). The Role of Shining Green Teas in Human Longevity. *Journal of Medical Research*, 1(2), 15-25.
- Dave, A. K., & Dave, D. (2019). The Role of Shining Green Teas in Human Longevity. *Journal of Medical Research*, 1(2), 15-25.
- Henderson, A., & Henderson, A. (2019). Shining Green Teas: The Role of Shining Green Teas in Human Longevity. *Journal of Medical Research*, 1(2), 15-25.
- Johansen, C. J., & Thompson, A. (2019). The Impact of Shining Green Teas on Human Longevity. *Journal of Medical Research*, 1(2), 15-25.

This text could be the main title of your research

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1. Department of Jumping Science, Mushroom Kingdom Hospital and Research Center, Napoli, Italy
2. Turtle Desert, Mushroom Kingdom Hospital and Research Center, Napoli, Italy
3. Department of Starship and Flight Dynamics, Sky-walker Squadron Academy, Woods

Introduction

The introduction of a research poster should provide a brief overview of the study's purpose, background, and significance. This can be achieved by:

- providing some background information on the topic
- clearly stating the research question or hypothesis
- explaining why the research is important.

The introduction should be concise, informative, and engaging to capture the reader's attention.

Finally, outline the objectives of your research. This should be a clear statement of what you are hoping to achieve through your research, and should help to guide the reader through the rest of the poster.

Methods

1 PROVIDE AN OVERVIEW
Begin the methods section with an overview of the experimental design and methods used in your study. This should help the reader understand the overall approach taken in your research.



2



3

THIS COULD BE A SECTION OF THE METHODS
Provide details on the participants or subjects used in your study, including relevant demographic information such as age, sex, and any other relevant characteristics.

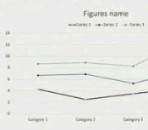
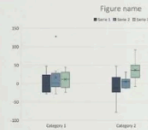


Results

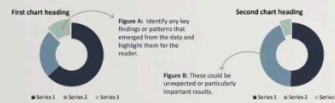
What answer was found to the research question; what did the study find? Was the tested hypothesis true? Explains what the authors found following the method previously suggested. You should present your results as objectively as possible. Present the data in a logical and organized way, using tables, graphs, and charts as appropriate. Make sure to label all figures clearly and provide a brief caption that explains what is being shown.

Use visual aids such as graphs, charts, or tables to present your data. These visuals should be clearly labelled and easy to understand.

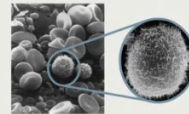
Don't forget to quantify the results. When presenting numerical data, be sure to provide the relevant statistics, such as means, standard deviations, or p-values.



Avoid interpretation. In the results section, it's important to present the data objectively and avoid interpreting the results. That should be left for the discussion section. Focus on the data visualization.



Provide context. For each result presented, provide context by explaining what it means and how it relates to the research question or hypothesis being investigated.



Overall, the results section should be organized, clear, and concise, presenting the most important findings in a way that is accessible and easy to understand. Using visuals can be very effective in presenting complex data, and highlighting key findings can help to draw the reader's attention to the most important information.

It's important to focus on presenting the data objectively and without interpretation. The goal is to present the findings clearly and accurately, without drawing conclusions or making recommendations. Save any interpretation of the results for the discussion section. Finally, don't forget that "A picture is worth a thousand words", why settle for just text? Make it memorable with visuals and engage your audience!

Discussion

Begin the discussion section by reminding the reader of the main research question and objectives.

Summarize the key findings of your study in a few sentences. Avoid repeating the results section. Discuss the implications of your findings and what they mean in the context of the research question or hypothesis being investigated.



THIS COULD BE A SECTION OF THE DISCUSSION
Compare your findings with those from previous research in the field. Discuss similarities, differences, and any inconsistencies or contradictions.

THIS COULD BE ANOTHER SECTION OF THE DISCUSSION
Discuss the limitations of your study, including any potential sources of error or bias. Be honest and transparent about the limitations of your research, but also explain how they can be addressed in future studies.

Discuss the implications of your findings for theory and practice in the field. Explain how your research could potentially be applied in real-world contexts. You can also state any potential future research directions.

Conclusion

- > Summary of your key conclusions: recapitulate the main findings
- > The implications of the research for theory and practice. It could go along those lines:
- > In conclusion, this study highlights the importance of X in understanding Y and provides a foundation for future research in this area.

The findings suggest that X has a significant effect on Y, and that this effect may be mediated by (explain possible mechanisms). The study has some limitations, but the implications of the findings are significant for clinical practice and public health policy. Overall, this study contributes to the knowledge base in the field and may pave the way for further discoveries.

References

- Smith, J. A., & Doe, J. D. (2022). The Effects of Drinking Unicorn Tears on Human Longevity. *Journal of Mythical Research*, 12(1), 15-25.
- Sky-walker, L., & Canebo-lee, O. K. (2022). The Force is Strong with Cats: A Study of Feline Jedi Abilities. *Journal of Intergalactic Psychology*, 11(2), 45-58.
- Starz, A. R., & Bonner, B. (2024). The Hulk Effect: The Relationship Between Anger and Superhuman Strength. *Journal of Superhero Psychology*, 1(3), 75-88.
- Charizard, A., & Pikachu, P. (2022). Gotta Catch 'Em All: The Effect of Pokemon Training on Physical Fitness. *Journal of Neo-Berrie*, 8(1), 95-104.
- Johnson, C. J., & Thompson, K. (2024). The Impact of Spongekob Squareships on Attention Span: A Study of Preschool Children. *Journal of Undersea Psychology*, 3(3), 17-28.



Sample AI Project:

- ☐ **Title:** Dinosaur Classification using Convolutional Neural Network
- ☐ **Description:** This project aims to classify images of dinosaurs into 15 different species using a convolutional neural network (CNN). The dataset consists of high-resolution images of various dinosaur species obtained from museum archives and online sources.
- ☐ **Dataset:** Dinosaur Image Dataset (15 species) from <https://www.kaggle.com/datasets/larserikrholm/dinosaur-image-dataset-15-species>
- ☐ **Methods:** A CNN architecture comprising convolutional layers, pooling layers, and fully connected layers is implemented to extract features and classify dinosaur images.
- ☐ **Results:** The trained CNN model achieves an accuracy of 85% on the test dataset, demonstrating its effectiveness in classifying dinosaur species based on image data.
- ☐ **Conclusion:** The classification of dinosaur species using deep learning techniques offers valuable insights into paleontology and facilitates the study of prehistoric biodiversity.

