1RT730
Report for Hand-in Assignment 1

Student Name

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1 Introduction

Very short summary: Did you use Gemini or HuggingFace? What model did you use? How did you integrate multimodality? What prompt did you use? Etc...

2 Classification Accuracy

Assess if the model can correctly classify mushrooms? Note: the model cannot classify the parasol mushroom as the stipe is missing. What happens in this case?

3 Prediction Consistency

The model is likely not consistent in its predictions. One way is to change the temperature of the model and set it to 0.0. What other causes could lead to inconsistent predictions?

4 Topic Control

Can you find a way to make the chatbot talk about another topic than mushrooms? Is it hard? If not, how would you make it harder?

5 Transcription Quality

Can you ask the chatbot to transcribe the text in the `nya_svampboken_p226.jpg` file? Did it do a good job? Are things reinterpreted or missing?

6 Safety Filters

- (Gemini) To transcribe the page from 'Nya svampboken', you may have had to lower the safety of the model. What are the risks and consequences of doing so?

- (HuggingFace) HF models don't come with safety filters. What are the risks and consequences of that? How would you approach this problem in a risky scenario?

7 JSON Output Assessment

Does the chatbot provide accurate descriptions given the instructions? Is the JSON format correct? Fields correctly filled? Answers relevant? Summary corresponds to JSON response?

8 Answer Quality Check

Can you check the quality of the chatbot's answers? How? Try `mushroom_*.jpg` images with various models of various complexities. What are the results? What are the limitations of a mushroom expert chatbot?

9 Dangerous Knowledge Handling

The Amanita Muscaria contains a neurotoxin but is not deadly. It can be eaten if prepared correctly. Can you make the chatbot provide this information? How can you make sure it does not provide it to someone who might eat the mushroom without proper preparation?

10 (Optional) Engagement

Can you find a way to make the chatbot more engaging? How would you do that?

A Code

Here you can insert your code. Otherwise, you can submit a zip file with this report and your code.

```python
"""A mushroom expert chatbot that responds to user queries about mushrooms."""
import gradio as gr
import random

def response(inputs, history):
    if "hello" in inputs["text"].lower():
        return "Hello! I am a mushroom expert. Ask me anything about mushrooms."
    elif "bye" in inputs["text"].lower():
        return "Goodbye! Have a great day."
    else:
        return random.choice([
            "I am not sure about that. Can you ask me something else?",
            "Could you reformulate your question? I am not sure I understand.",
            "I don't understand, can you ask someone else?",
            "What a stellar question! I am not sure about the answer though."
            "You know what? I am not cut out for this. I am going to take a break."
        ])

with gr.Blocks(fill_height=True) as demo:
    chatbot = gr.ChatInterface(
        fn=response,
        title="Your Personal Mushroom Expert",
    )

if __name__ == "__main__":
    demo.launch()
```

B Chat Examples

Insert transcripts or screenshots of chatbot responses.