6CS012 - Artificial Intelligence and Machine Learning. About a Project Proposal for Image Classification Task.

Prepared By: Siman Giri {Module Leader - 6CS012}

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———————— Project Proposal Guidelines. ————————-

1   Instructions

This sheet contains Instructions for presenting your project proposal for Image Classification Task.

- One Proposal per group. One presentation per group.

2   Project Proposal

Each group must submit a project proposal before proceeding with the implementation. The proposal should focus on the dataset being used and will be presented during the Week 7 workshop.

2.1   Proposal Requirements

- Provide a detailed explanation of the dataset you have chosen, including its source.

- Present key statistics about the dataset, such as the total number of images, number of classes, and the distribution of images per class.

- Perform basic visualizations to enhance the understanding of the dataset.

- Ensure that no preloaded image datasets from deep learning frameworks (such as TensorFlow or PyTorch) are used.

- The proposal should not exceed two pages. Refer to the next section for detailed guidelines.

- Each group must also prepare a presentation summarizing their findings (not exceeding five slides) and present it during the Week 7 workshop.

2.2   Guidelines and References for the Proposal

1. Formatting Guidelines

- Length: One to two pages (approximately 300-400 words).

- Font: Times New Roman, 12 pt.

- Margins: 1 inch on all sides.

- Line Spacing: Single.

2. Evaluation Criteria

The proposal will be evaluated based on:

- Clarity and feasibility of the research question.

- Relevance and appropriateness of the dataset.

- Adherence to formatting and submission guidelines.

3. Submission Instructions

- Submit your proposal as a PDF file (File Name Format: `GroupName_UniID.pdf`).

- Submit the proposal to your respective instructor and verify it before the Week 7 workshop.

- One proposal per group is sufficient, but all group members must be clearly mentioned.

- Each group must create one presentation, which will be presented during the Week 7 workshop.

4. Suggested Structure for Your Proposal

You can structure your proposal based on the following guidelines:

1. Research Question

Clearly define the research question you aim to answer using image classification. Examples include identifying objects in images, classifying medical scans, or recognizing handwritten characters.

2. Title

Provide a suitable title based on your research question.

3. Dataset Description

- Describe the dataset(s) used:

    - Source

    - Number of images, number of classes, and image resolution

- If using a custom dataset, explain:

    - Collection method (e.g., web scraping, manual labeling)

    - Labeling approach (manual or automated)

    - Challenges faced during data collection

———————— Good Luck. ————————-