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Lab 02 Reflective Journal

In this lab, I got hands-on experience with the VGG16 model – a powerful, pre-trained CNN that's been trained on over a million images from ImageNet. Because the model was already trained, it instantly recognized various objects in our test images without any additional training, which honestly felt pretty impressive.

1. Pre-trained Model:

- VGG16 came ready to go, so we could jump straight into making predictions. We didn't have to spend hours (or days) training our own model from scratch.

2. Data Preprocessing:

- I learned that resizing images to 224x224 and applying specific preprocessing steps (like subtracting mean pixel values) are crucial. If the model doesn't get images in the exact format it expects, predictions can be way off or fail altogether.

3. Impact of Input Modifications

- It was eye-opening to see how small changes, like applying a filter or resizing differently, could change the model's confidence in its predictions.

This highlighted just how important it is to keep inputs consistent with what the model was trained on.

Overall, this lab showed me the practical power of deep learning and the major role that preprocessing plays. With the right setup, pre-trained models like VGG16 let you handle complex computer vision tasks in no time-making them a game changer for projects that need accurate image recognition.