

Instructions

1. Create a fresh conda environment and install pytorch and torchvision.

```
conda create -n comp0197-cw2-pt python=3.12 pip &&  
conda activate comp0197-cw2-pt &&  
pip install torch==2.5.0 torchvision
```

2. Install additional dependencies.

```
pip install omegaconf # for sam2
```

3. Download the oxford pets dataset and extract it.

```
bash ./load_oxfordpets.sh
```

4. Generate the SAM masks. Demonstrating with only first 10 samples. If you don't pass any args and it will run all samples

```
python generate_sam_mask_from_bounding_box.py --dataset_size 10
```

5. Generate the CAM dataset.

```
python gen_cam_dataset.py
```

6. Train the models. Demonstrating with only 2 epochs. If you don't pass any args it will run for 50 epochs.

```
python train.py --baseline --epochs 2
```

```
python train.py --our-model --epochs 2
```