ECSE 415 Project Report Template

McGill University, Fall 2020

**Group #:** *00*

**Group Members:**

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**Description of Person Detector (part 1):**

Describe the method used to detect people in part 1. State from where the method was obtained (e.g. website or github repository) and briefly describe how the method works. Provide an image showing the detections obtained on at least one image from the dataset.

**Description of Person Detector (part 2):**

Describe the method used to detect people in part 2. Briefly describe how the method works. Described what features you used to feed into the SVM classifier. Explain your choice of window size. Outline the process used to get the training data (positive and negative examples). Explain your choice of the number of training examples.

**Description of the duplicate detection removal and person counting:**

Describe the method used to remove duplicate detections in part 2. Briefly describe how the method works. Also describe the code used to count the detections.

**Evaluation of Person Detector:**

Describe how you evaluated the performance of your person detector. Take the ground truth to be the bounding boxes detected in part 1. Use the IoU metric to quantify the performance of the detector. Provide an image showing the detections obtained on at least one image from the dataset.

**Evaluation of Person Counting:**

Run the person detector of part 2 on all 1000 images of the dataset. Construct the response spreadsheet and upload it to the Kaggle competition web site. List the score (ranking and metric) reported on the Kaggle web site leaderboard. (note: this will not be the *final* score/ranking, as that will only be reported after the end of the competition period).

**Discussion:**

Discuss the lessons learned during this project. How could you improve upon your results? Are there better ways to estimate how many people are in an image than the approach used in this project? Describe any difficulties you faced in the project. Discuss the suitability of different types of features (e.g. HoG vs Haar or LBP or even Deep Features provided by a CNN).