ML2 Assignment 1 Marking Criteria

Group ID	
Mark	

	Criterion	Description	Mks
Data pre-processing (6)	Data pre-processing is proper for the purpose of training CNNs.	Split the data into training set and validation set. Extract gender and age labels from the images. Rescale the pixel values to [0, 1]. Data augmentation is used.	/6
Model A (44)	Reasonable model construction	A multi-output CNN model is defined. The size of feature maps being fed to the first fully connected layer must be less than 10 x 10. Proper loss and metrics used. Some techniques are considered for preventing overfitting.	/12
	Effective training	The four figures of learning curves are produced for monitoring the training. No significant underfitting or overfitting is observed.	/8
	Explain the model, the training process, the results well.	What is the CNN architecture and how is it trained? How do you set up the relevant hyper-parameters? Display the four figures of learning curves and give brief discussion of the performance.	/8
	Age performance	Your model outputs MAE on the test set (2000 images) is:	/8
	Gender performance	Your model outputs classification accuracy on the test set is:	/8
Model B (44)	Reasonable model construction.	A multi-output CNN model is defined based on one existing CNN model. The setting for freezing layers, fine-tuning layers and training layers is reasonable. Proper loss and metrics used. Some techniques are considered for preventing overfitting.	/12
	Effective training.	The four figures of learning curves are produced for monitoring the training. No significant underfitting or overfitting is observed.	/8
	Explain the model, the training process, the results well.	Which pre-trained CNN do you use? What is your CNN model and how do you transfer learn based on the pre-trained	/8

		CNN? Display the four figures of learning curves and give brief discussion of the performance.	
	Age performance	Your model outputs MAE on the test set (2000 images) is:	/8
	Gender performance	Your model outputs classification accuracy on the test set is:	/8
Summary and Discussion (6)	Good summary and discussion	Good summary and comparison of the two models and also have some discussion to demonstrate deep understanding of how to use deep learning models to solve real-life problems.	/6
Penalty (up to -10)	Any extra work for the marker to do for you after submission	1. Submission for a few minutes late. 2. Missing including a file. 3. Submitting an old version of a file. 4. The model links were wrong. 5. Forgetting to set the models "Anyone with the link" can access them. 6. …	
		Total	**/100**

Comments