Research Project Progress Report Week 4 – SIT723

Student Name:	Tithra Chap
Supervisors' Names:	Assoc Professor Richard Dazeley, Dr Bahareh Nakisa, Dr Sunil Aryal
Project Title:	Emotion Recognition Using Facial Expression
SIT723 Target Grade:	HD
Overleaf Project Link:	https://www.overleaf.com/6618692772zcghdsfqcybf
Project Folder Link:	https://github.com/Tithra/SIT723.git
Worklog:	31hrs 20mins https://github.com/Tithra/SIT723/blob/c8093a262c2e029f7ce643063e0cb50168b6408d/Worklog.xlsx
Project Plan	
Summary of the work planned with your supervisor:	As planned, I will have to generate some results of accuracy tests in using CBAM + CNN and FER2013 dataset. I also need to draft the literature review based on the recommended outline discussed during supervisor meeting.

Summary of the work done:	I have managed to make the experiment to running using CBAM + Resnet50 and FER2013. However the results seem under the expected performance. I also finetuned the model parameters such as optimizer, batch size and number epochs to get different results. These results will be brought onward for discussion in the next supervisor meeting. For literature review drafting task, I get most of the parts done. Although the direction of the research is not 100% clear. I still look for more paper along the way since there are abundance of the research papers in facial expression recognition. Missing any important paper may ruin my research uniqueness and waste the effort in the future design and implementation.
Next steps:	I will improve the model performance. Some possible ways to work on are pre-process the image data (remove the unreliable data points using face detection technique) or implement illumination to the images, further finetuning to the model such increase the layers of the CNN network, and the change of CNN framework. Literature will be finalize next week (week 5).
Overall project progress:	Based on the backlog, it is very close to what has been planned. Literature review drafting is about to be done and I have the codes up and running that can be further adjusted to meet the target of future changes in hypothesis question. So I can conclude that the progress is going quite as what has been planned.