

Meeting Minutes

Date: 17 May 2019

Location: Imperial College, IBM Hursley (via video conference)

Present:

IBM	Louise Cooper, Emily Larkin, Thomas Hill
Project Group	Joshua Rizal Chan, Lua Ying Hao, Ng Yi Song, Patrick John Chia, Joel Yeow

Agenda

1. To provide IBM team with an update on project progress
2. To discuss project with IBM team

Minutes

Item	Action By
1. <u>Progress Update -- Machine Learning.</u> <ul style="list-style-type: none">• Accuracy improved from 60% to 87.5%• Trained on Jester dataset with 6 actions (5 actions + no action)	None
2. <u>Progress Update -- Dataset.</u> <ul style="list-style-type: none">• Collected data from 30 more volunteers, more diverse dataset• Completed preprocessing on recorded video• Ready to feed training data into machine learning model for training	None
3. <u>Progress Update -- Jetson.</u> Updated IBM team on power issue with Jetson. <ul style="list-style-type: none">• In the midst of solving power issue• Have ordered USB to barrel plug cable to provide power	None
4. <u>PowerAI Vision.</u> Thomas Hill from IBM worked on PowerAI Vision by IBM, a computer vision platform from IBM. <ul style="list-style-type: none">• To aim to use more IBM technology• Tom worked on American Sign Language (ASL) interpretation with machine learning• Limitations with Google Cloud Platform K80 due to limited amount of RAM (12GB), limiting training speed• Shown demo by Tom with ASL letter interpretation using PowerAI• Project group notes that ASL letters are static• ASL interpretation performed using static frames -- if same letter is detected for more than 12 frames, that letter is returned as having been seen	All

- Online dataset of ASL letters available
- To work with IBM team on how to access PowerAI -- will put model on external network to give us access to it

5. **IBM Server.** To get set up with server at IBM Hursley for machine learning training, to use IBM resources and have access to more GPU RAM.

- Start with online version (on IBM cloud) then move to physical version in the future

6. **Additional Training Videos.** Louise to get videos from mother and sister doing Makaton signs.

None

Action Items

S/N	Para	Action	Party	Deadline
1.	4	To work with IBM team on how to access PowerAI	All	-
2.	5	To get set up with server at IBM Hursley for machine learning training	All	-