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From: Coyote2

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Summary

- Team Coyote2 had a meeting with ph.D Mia and Team Coyote1.
- Team Coyote2 experimented and trained models using image, audio dataset.
- Team Coyote2 solved the GUI problem of the Raspberry Pi.
- Team Coyote2 implemented the evaluation code to run the model on Raspberry Pi

What Coyote2 completed this week

- Team Coyote2 met with ph.D. Mia and team Coyote1 about our progress and plan.
- Team Coyote2 searched about how to find the start time of the Coyotes howling. [1]
 - Audio pattern recognition
 - Audio fingerprint
 - Find the highest peak of the howling sound
- Team Coyote2 experimented with various models using feature extraction.
- Team Coyote2 did experiments and compared the results of the experiment. [2]
- Team Coyote2 wrote a paper about dataset composition.
- Team Coyote2 solved the booting problem of the Raspberry Pi.
- Team Coyote2 connected the local GPU at the first floor.
- Team Coyote2 setup for remote work about GPU.

Things to do by next week

- Writing paper and script of final project.
- Complete experiments by comparing the feature extraction results, and fix the method which we will use and start to adjust hyperparameters.

Problems or challenges

- There was a problem with transmission of the model to Raspberry Pi.
- The environment variable of the Raspberry Pi operating system version suddenly changed, therefore it doesn't work well.

References

[1] *Audio Fingerprinting with Python and Numpy*. [Online]. Available:

<https://willdrevo.com/fingerprinting-and-audio-recognition-with-python/>

[2] *Coyote Training Result* [Online]. Available:

<https://docs.google.com/spreadsheets/d/1l6AXIZj-gq3U2GZ5lmGVjdETBdKpocQjUA28WBQpY6w/edit#gid=212367810>