

Report Date: 09/15/2022

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From: TOP GUN

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## Summary

Our team started to take an online course about Deep learning. There were 13 chapters in total so, each of us studied and presented the assigned chapters.

We had a meeting with two Purdue students (Kyung Rock Kwon, and Jeffrey Tsai) and gave them three tasks to complete by next Monday.

We summarized and studied the structure of the IEEE paper by reading two papers related to our research topic.

In addition, we sent an email to Professor Eric so that we could go to an apple orchard to gather apple images and sugar level data sets.

## What TOP GUN completed this week:

- Decided to take an online course about Deep learning.
- Divided up the lectures and randomly gave each part to our team members.
- Made the team poster.
- Got an e-book about machine learning, and deep learning to study.
- Made a study plan to organize learning goals for deep learning.
- Decided on the presentation method and order.
- Heejun studied Deep learning, and gradient descent and presented them to the team.

- Sent an email about our topic and asked questions about Peter's Orchard to Eric
- Read the IEEE conference form.
- Each member chose papers to read and present about it.
- Had a meeting with Purdue students, Jeffrey Tsai and Kyungrock Kwon, and we gave them tasks to complete by the following Monday.
- Jeongho studied and presented about Backpropagation, Activation Function, Loss Function, and Optimizer.
- Taeyun studied and presented Tensorflow & Keras.
- Seokhyun studied CNN.

#### Things to do by next week

- Go to Peter's Orchard on Wednesday (Sep. 21).
- Hanbi will study CNN modeling and methods of improving its efficiency.
- Discuss 2 IEEE papers.
- Make presentation slides for the Elevator pitch.

#### Problems or challenges:

All the team members have never studied Artificial Intelligence before. So we started taking an online course to learn deeply about AI and presented what we learned from the chapter.

#### References

Nhut-Thanh Tran, Quoc-Thang Phan, Chanh-Nghiem Nguyen, and Masayuki Fukuzawa. (2021). Machine Learning-Based Classification of Apple Sweetness with Multispectral Sensor. Presented at 21st SNPD Winter 2021, Ho Chi Minh City, Vietnam. [Online]. Available: <https://ieeexplore.ieee.org/document/9403506>

Manish Kumar, Siddharth Sharma, Divy Chaudhary, and S. Prakash. (2021). Image Recognition Using Artificial Intelligence. Presented at 2021 International Conference on Advance Computing and Innovative Technologies in Engineering(ICACITE), Greater Noida, India. [Online]. Available: <https://ieeexplore.ieee.org/document/9404606>