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Bacon Beacon

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Summary

This week was vacation week, so our team did not make good progress on writing code. However, Yoonha, who is in Korea, did several jobs on the server. Other team members also did independent study.

What "BEST" completed this week

- Code refactoring on server
  - Refactored the code for other team members may understand well

Things to do by next week

- Communication via Socket implementation
  - Mobile devices should communicate with server via socket, and it needs to be designed before sending data for handling that

- Advanced Machine Learning training for localization
  - Neural Network for localization data should be collected in real situation
  - Place beacons over human, and needs to be collect data from that for accuracy

- Augmented Reality(AR) study
  - As background data is successfully developed, we should work on AR.
  - It should be hard, but there are many models, so we can get hints from them.

Problems or challenges:

- Implementation of Tensorflow Lite does not worked well
    - We implemented GBM methods to get a good progress on indoor localization[1]
    - Got 99% of accuracy, which is overfitting
    - Need to find another methods.

References

[1] Longquan Jiang, Bo Zhang, Qin Ni, Xuan Sun, and Pingping Dong, “ Prediction of SNP sequences via Gini impurity based gradient boosting method,” IEEE ACCESS, vol. 7, pp. 12647-12657, 2019.