

Weekly Report

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1 Progress

- Try to implement LSTM-CNN Ensemble method with 30-subjects dataset.[1]
 - I've been working on fixing bugs for a while.
- (Contact with Mr.Ohba about WFIoT2022, and adjust the shift schedule.)

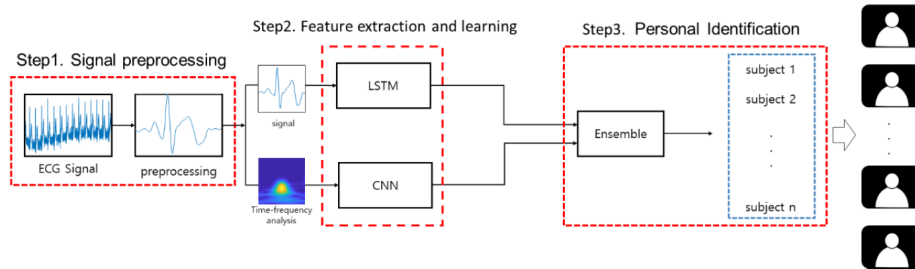


Figure 1: LSTM-CNN Ensemble method

2 Next Plan

- Ask seniors about the bugs
- Continue to implement and evaluate LSTM-CNN Ensemble method
- Check the ECG reconstruction paper[2] and the source code that Yamamoto-san will share with me.

References

- [1] Lee, Jin-A., and Keun-Chang Kwak. "Personal Identification Using an Ensemble Approach of 1D-LSTM and 2D-CNN with Electrocardiogram Signals." Applied Sciences 12.5 2022: 2692.

- [2] K. Yamamoto, R. Hiromatsu and T. Ohtsuki, "ECG Signal Reconstruction via Doppler Sensor by Hybrid Deep Learning Model With CNN and LSTM," in *IEEE Access*, vol. 8, pp. 130551-130560, 2020, doi: 10.1109/ACCESS.2020.3009266.