基於 PPG 訊號的血壓預測

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開發工具：PYCHARM
測試環境：Linux

一、簡介：

基於 big detection 的想法，我們要合併多個資料集，之後丟到現有的原始程式碼進行訓練預測，證明資料量的增加讓訓練效果提升，得到更準確預測。

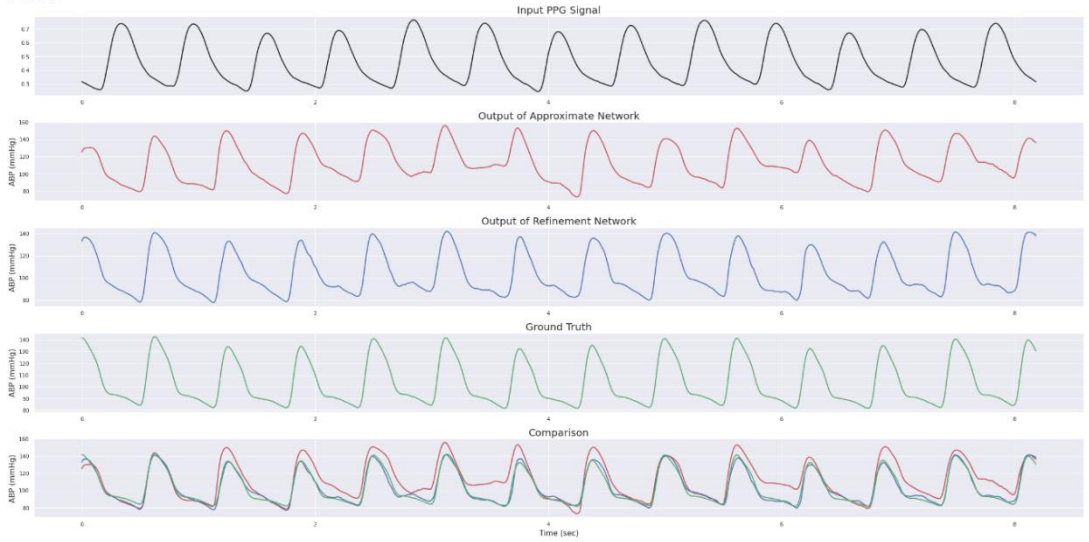
二、測試結果：

Evaluation of Predicting ABP Waveforms

```
from evaluate import predicting_ABP_waveform

predicting_ABP_waveform()
```

```
Please input a record from 1 to 27260 to visualize.
Input -1 to quit.
> 11557
```



Evaluation of BHS Standard

```
from evaluate import evaluate_BHS_Standard

evaluate_BHS_Standard()
```

```
-----------------------------
|        BHS-Metric         |
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-----------------------------------------
|     | <= 5mmHg | <=10mmHg | <=15mmHg |
-----------------------------------------
| DBP |  82.8 %  |  92.2 %  |  95.7 %  |
| MAP |  87.4 %  |  95.2 %  |  97.7 %  |
| SBP |  70.8 %  |  85.3 %  |  90.9 %  |
-----------------------------------------
```
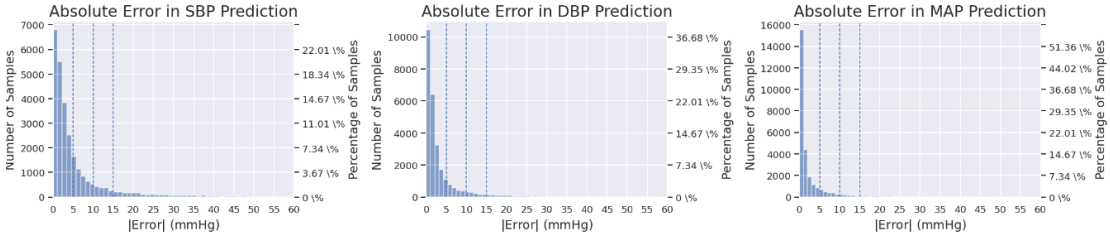
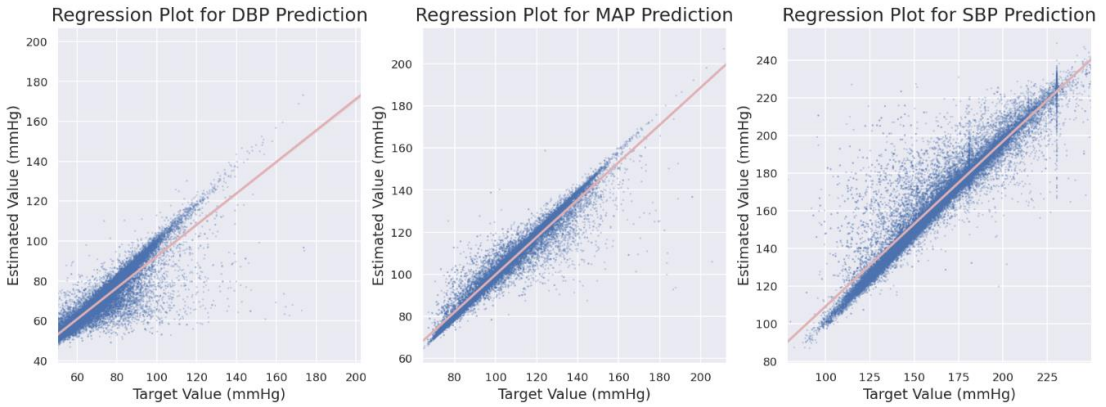



Regression Plot

```
from evaluate import regression_plot

regression_plot()
```




```
DBP
LinregressResult(slope=0.7881232167746479, intercept=13.603831186083916, rvalue=0.8940815249466347, pvalue=0.0, stderr=0.002391416385075185 2)
MAP
LinregressResult(slope=0.8889628734830581, intercept=10.959909110806635, rvalue=0.9655721983655167, pvalue=0.0, stderr=0.001450611191159682 6)
SBP
LinregressResult(slope=0.8777585906430966, intercept=21.361029453759613, rvalue=0.9359631680409894, pvalue=0.0, stderr=0.002000012917599005 3)
```