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| Filename | Input (required data) | Output | Description |
| Pre-processing | PTB-XL data set | Depending on which sections are run data for use in GANs will come from here e.g. X\_CRBB.csv will be produced |  |
| CNN | Processed PTB-XL dataset | Hyperparameter tuning graphs and accuracy graphs |  |
| DCGAN  oldmodel12lead.py | All CRBB samples from PTB-XL data set | Produces 10,000 fake CRBB samples | Based off of a deep convolutional gan with it being adapted for a 1 dimensional data set |
| LSTM GAN  LSTM-GAN.py | All CRBB samples from PTB-XL data set | Produces 10,000 fake CRBB samples | Added in the use of Bidirectional LSTM layer to help with the loss of memory issue |
| Encoder -Decoder  C2CGANV2\_12Lead\_nonlstm.py | All CRBB samples from PTB-XL data set | Produces 10,000 fake CRBB samples | Set up with the aim to improve the feature extraction from the data |
| LSTM – Encoder – Decoder  C2CGANV2\_12Lead\_.py | All CRBB samples from PTB-XL data set | Produces 10,000 fake CRBB samples | Combination of the two above due to the increase in success of them |
| Analysis code  Fake-CRBBB-analysis\_v3.py | All fake sample outputs from each of the GAN networks | Produces Accuracy analysis of each of the synthetic data sets | To analyse the quality of the data a binary training was done on the CNN with the amount of data and data type varried |