CCBDA HW3 Anomaly Detection (Autoencoder)

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Method: (brief description, do not exceed half page) (ex. data processing, model architecture, training parameter, …)

- Data processing: Split the time series into multiple frame with length 100
- Model architecture:
  - RecurrentAutoencoder(
    (encoder): Encoder(
      (rnn1): LSTM(1, 256)
      (rnn2): LSTM(256, 128)
)
    (decoder): Decoder(
      (rnn1): LSTM(128, 128)
      (rnn2): LSTM(128, 256)
      (output_layer): Linear(in_features=256, out_features=1)
)
)
- Training parameter:
  - Epochs: 200
  - Optimizer: Adam
  - Lr: 0.0003
  - Weight decay=0.0001
  - Scheduler: CosineAnnealingLR

Reference: (Specify the source of your code.)

I use the model from website “Time Series Anomaly Detection using LSTM Autoencoders with PyTorch in Python”, https://curiousily.com/posts/time-series-anomaly-detection-using-lstm-autoencoder-with-pytorch-in-python/