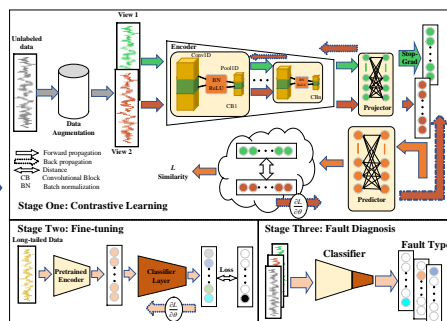
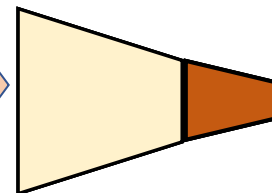


SimSiam Framework



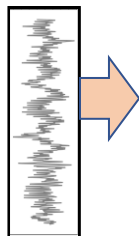
Classifier



Stage One: Self-Supervised Learning(SimSiam)

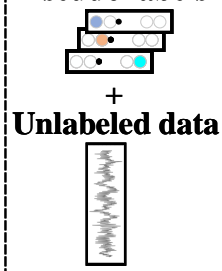
Unlabeled data

Classifier

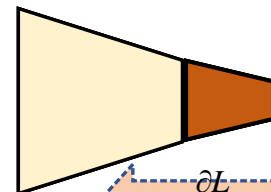


Pseudo labels

Labeled data



Classifier



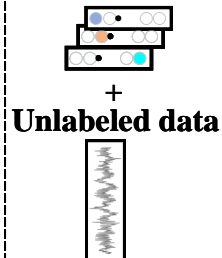
Loss



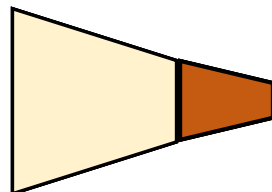
Stage Two: Semi-Supervised Learning

Pseudo labels

Labeled data



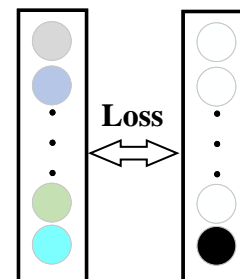
Frozen Classifier



$$F(\omega, \beta)$$

$$\frac{\partial L}{\partial \omega}, \frac{\partial L}{\partial \beta}$$

Loss



Stage Three: Margin Calibration