【Directory】

1. logs/b2b3b4b5b6\_V: logs by simulator (.txt)
2. features/b2b3b4b5b6\_Vb: annotate B & eq. intervals (.pkl) train data
3. features/test\_Vb: annotate B & eq. intervals (.pkl) test data
4. features/gt\_Vb: ground truth Nankai megaquakes (.pkl) evaluation data
5. results: paramB by simulated predB by train & test & evaluation

nankairireki.pkl

(slip velocity yV, shape =[256,1400,3]=[number of data, year,Nankai,Tonankai,Tokai(cell)])

【.py】

\*LSTM.py: LSTM for classification. 5cell ver.

if training -> 5cell simulation data of logs (paramB, U)

if evaluation -> 3cell (2019 year) ground truth Nankai trough megaquakes data (created another .py)

・command argument

1. number of class. You select “11” or

2. number of layers in Regress. You select “3”, “4” and “5”.

ex) C:\User\you> python LSTM\_Cls.py 11 3

\*\*MakeData.py

\*\*\*TrainingNN.py: Regression Neural Networks & Classification Neural Networks

・Regression NN

Select layer 3 layer (1 hidden layers) or 4 layers (2 hidden layers) or 5 layers (3 hidden layers)

Activation: all hidden layers -> ReLU output layers -> None

・Classification NN

3 layers (1 hidden layers)

Activation: None -> output layers -> sigmoid

【process】

1. LoadBV: IN-> one file path, OUT-> B & V (8cell)
2. convU2YearlyData: IN-> V, OUT-> V year (5cell,8000yr)
3. GetyVInterval: IN->

【training】

1. LSTM
2. CreateRegInputOutput: input feature vector for regression NN