Tensorflow:  
TensorFlow is an open-source software library for dataflow programming across a range of tasks.

A computational graph is a series of TensorFlow operations arranged into a graph of nodes. Each node takes zero or more tensors as inputs and produces a tensor as an output.

Neural network:  
Here is our network. It has six layers. One convolutional, one pooling and two fully connected.

And our input is the spectrum of different structures, some 201 by 3 matrices. We divide our dataset into two parts, 8 thousand for train and 575 for test.

Why is 8575:

L1:1000:100:1600

L2: same

T1: 200:100:600

T2: 200:100:600

Alpha: 0:30:180

No validation.