

## PA1 Progress

### Coordinator Node:

- communication in training between the coordinator and compute nodes is done
- In train() steps, we've implemented all the steps except considering the conditions of concurrent running of multiple compute node (such as using mutex to prevent race condition.)
- Scheduling policy has not been implemented.
- Coordinator scheduling: Rejecting task and injecting load have not been implemented.

### Compute Nodes: done

### Client: done

### Design Document: not yet

### Phase 1 result:

Using the following parameters:

training filename = "train\_letters1.txt"

k = 26

h = 20

eta = 0.0001

epochs = 75

rounds = 1

Validation error is 0.789714

```
yang8919@cse1-plate01:/home/yang8919/PA1-bail0416-yang8919-yahui/client/build $ ./client cse1-cuda-02 5105 /home/yang8919/PA1-bail0416-yang8919-yahui 1 75
Connected to server!
Validation error: 0.789714
Connection closed.
```

**Use of AI Tools:** part of the thread\_func in Coordinator\_server.cpp is generated from OpenAI.