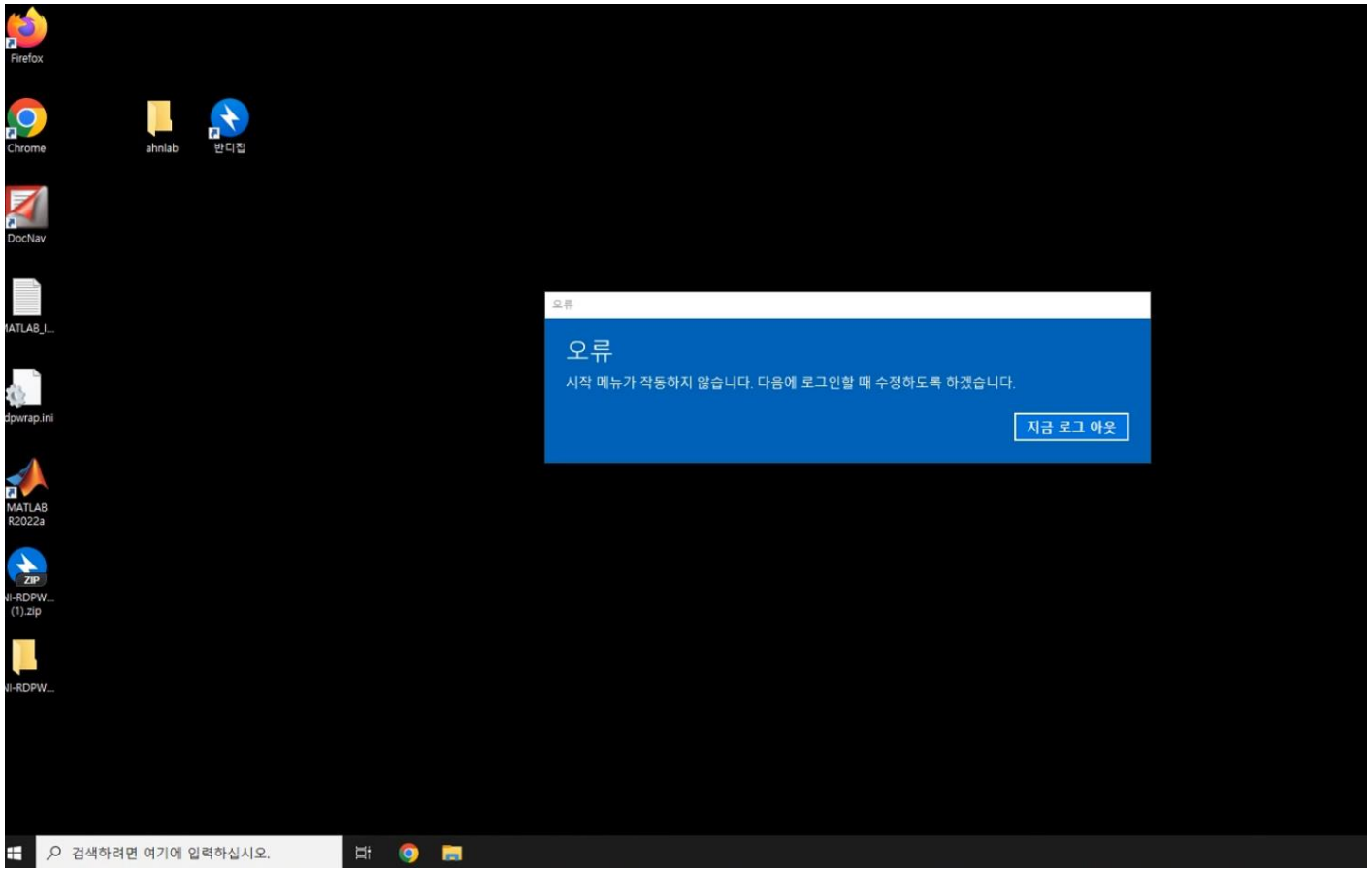
Bi-PointFlowNet

4차 보고

Experiment

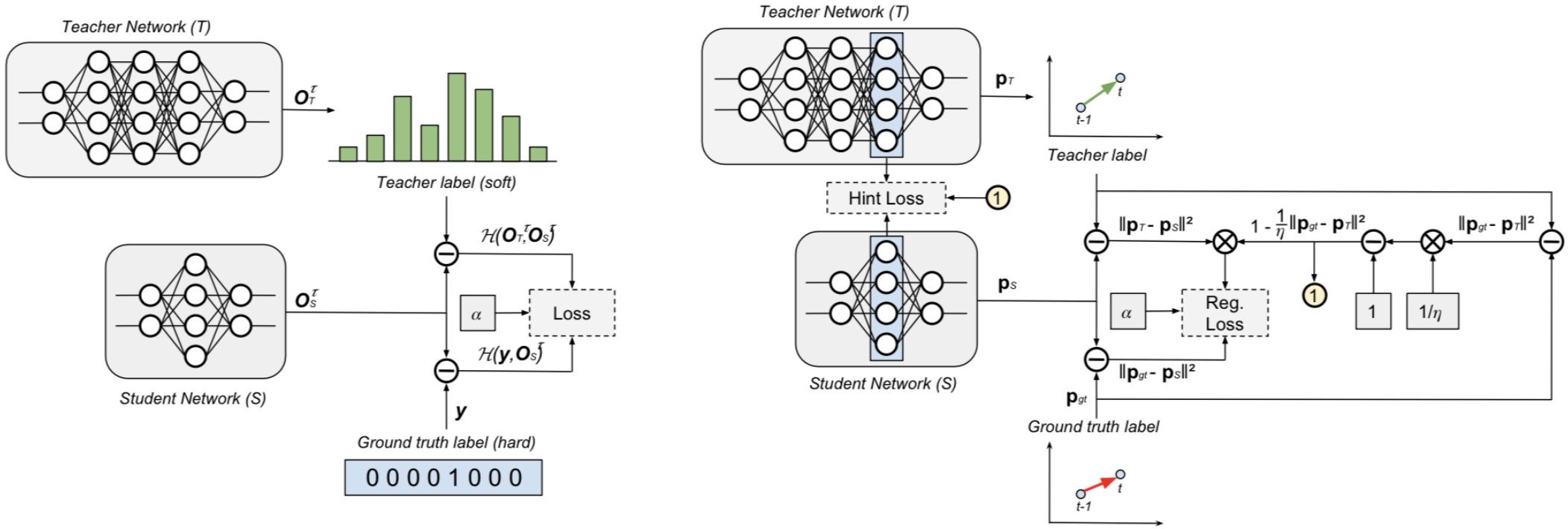
연구실 컴퓨터에 개인 계정 생성

But.. 연구실 컴퓨터에 문제가 생겨서 작업진행 못함



Attentive Imitation Loss (AIL)

Distilling Knowledge From a Deep Pose Regressor Network



(a) KD in Classification

(b) KD in Regression

Attentive Imitation Loss (AIL)

Attentive Imitation Loss

$$\mathcal{L}_{reg} = \frac{1}{n}\sum_{i=1}^{n} \alpha \left\|\mathbf{p}_S - \mathbf{p}_{gt}\right\|_i^2 + (1-\alpha)\Phi_i \left\|\mathbf{p}_S - \mathbf{p}_T\right\|_i^2 \tag{8}$$

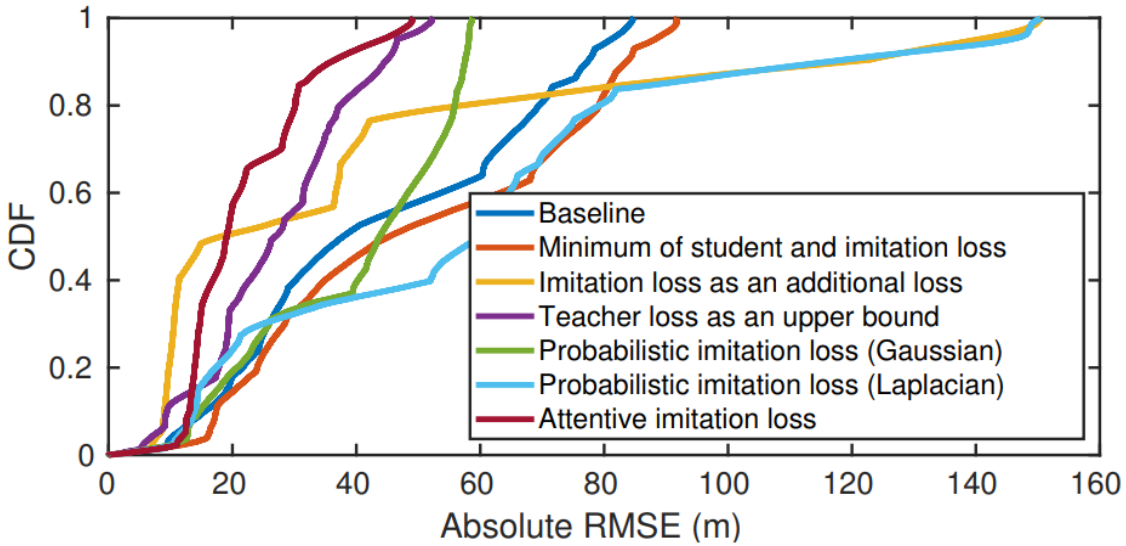
$$\Phi_i = \left(1 - \frac{\left\|\mathbf{p}_T - \mathbf{p}_{gt}\right\|_i^2}{\eta}\right) \tag{9}$$

$$\eta = \max\left(e_T\right) - \min\left(e_T\right) \tag{10}$$

$$e_T = \{\left\|\mathbf{p}_T - \mathbf{p}_{gt}\right\|_j^2 : j = 1, ..., N\} \tag{11}$$

Attentive Hint Training(AHT)

$$\mathcal{L}_{hint} = \frac{1}{n}\sum_{i=1}^{n} \Phi_i \left\|\Psi_T(\mathbf{I}; \mathbf{W}_{hint}) - \Psi_S(\mathbf{I}; \mathbf{W}_{guided})\right\|_i^2 \tag{12}$$



Experiment

1. 연구실 서버 세팅
2. 여러가지 Knowledge Distillation 연구
3. 추가 경량화
4. 문찬 박사님 architecture에 Knowledge Distillation을 추가해서 Better Result?