Server

pretrain ⟹ initialize ⟹ label encoder ω^0 / data encoder θ^0

label name sharing

run, sit, stand… | sleep, sing… | gym, home…

global model

features ⟶ data encoder θ^t ⊙ → logits p
label names ⟶ label encoder ω^t

data encoder θ^{t+1} | label encoder ω^{t+1}
aggregation
data encoder θ^t | label encoder ω^t

transfer parameters

Client 1 … m

form distillation set

class rep.
data rep. (pseudo-annotated)

KD loss

p_i^m — label y_i
CE loss
train data encoder — *freeze*

p_i^m — label y_i
CE loss
train label encoder — *freeze*

round 0: initialization | round t: training & communication

Communication rounds