Final Training Imported weights Frozen Custom Linear Output Layer

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Cuda is available
Epoch: 1/20
train loss: 6.212082333186433 acc: 0.017073314822472974time elapsed(s): 621.3406660556793
test loss: 6.159760529654367 acc: 0.02857142857142857time elapsed(s): 637.8368949890137
Epoch: 2/20
train loss: 5.973032003844306 acc: 0.059585277958291494time elapsed(s): 580.6109993457794
test loss: 5.848885734013149 acc: 0.0880000000000001time elapsed(s): 595.807962179184
Epoch: 3/20
train loss: 5.406626538097341 acc: 0.1236958705027471time elapsed(s): 539.1301538944244
test loss: 5.199093937101818 acc: 0.149333333333335time elapsed(s): 553.9367008209229
Epoch: 4/20
train loss: 4.632995876714076 acc: 0.20866071956046553time elapsed(s): 538.6279108524323
test loss: 4.439041713532947 acc: 0.2518095238095238time elapsed(s): 553.9883010387421
Epoch: 5/20
train loss: 3.8842384517513278  acc: 0.29426360252850475time elapsed(s): 540.9244384765625
test loss: 3.728669775463286 acc: 0.33371428571428574time elapsed(s): 556.1556305885315
Epoch: 6/20
train loss: 3.2888274181936357 acc: 0.3709930879659715time elapsed(s): 539.9407966136932
test loss: 3.1376952672685894 acc: 0.4053333333333333time elapsed(s): 555.3474807739258
Epoch: 7/20
train loss: 2.846608828303874 acc: 0.4275772434571986time elapsed(s): 527.7289888858795
test loss: 2.7648743693033855 acc: 0.4502857142857143time elapsed(s): 542.264698266983
Epoch: 8/20
train loss: 2.524522157655433 acc: 0.47387014828380697time elapsed(s): 499.2228636741638
test loss: 2.4678451334635416 acc: 0.4883809523809524time elapsed(s): 512.8426780700684
Epoch: 9/20
train loss: 2.2934804732881084 acc: 0.5085839191823714time elapsed(s): 491.985111951828
test loss: 2.1360822011402676 acc: 0.5462857142857143time elapsed(s): 505.5160176753998
Epoch: 10/20
train loss: 2.1126856940378715 acc: 0.5387251137236369time elapsed(s): 541.6332268714905
test loss: 2.038888316199893 acc: 0.564952380952381time elapsed(s): 557.1636502742767
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Epoch: 11/20
train loss: 1.9617762178441416
                                acc: 0.5626868316890176time elapsed(s): 530.2397119998932
test loss: 1.8373119857424782
                               acc: 0.5961904761904762time elapsed(s): 545.9703989028931
Epoch: 12/20
train loss: 1.851933610109005
                               acc: 0.5823949902522597time elapsed(s): 519.8605680465698
test loss: 1.7129351559593564
                               acc: 0.6205714285714286time elapsed(s): 533.3470728397369
Epoch: 13/20
train loss: 1.7445690683615132 acc: 0.6014769303479648time elapsed(s): 527.1037783622742
test loss: 1.6356917675875482 acc: 0.6377142857142857time elapsed(s): 543.4345459938049
Epoch: 14/20
train loss: 1.6672108495313616 acc: 0.6160099249719384time elapsed(s): 586.2938544750214
test loss: 1.590859809245382 acc: 0.65066666666666667time elapsed(s): 602.7964720726013
Epoch: 15/20
train loss: 1.5976605705145281 acc: 0.6287942340639215time elapsed(s): 582.8288404941559
test loss: 1.4842445496661323 acc: 0.652952380952381time elapsed(s): 599.0596101284027
Epoch: 16/20
train loss: 1.528785058479762 acc: 0.643161812488923time elapsed(s): 537.6419847011566
test loss: 1.4421757510446367
                               acc: 0.6575238095238095time elapsed(s): 553.5589380264282
Epoch: 17/20
train loss: 1.4737055336653662
                                acc: 0.6546818692030484time elapsed(s): 549.1003654003143
test loss: 1.3714956454322451 acc: 0.6765714285714286time elapsed(s): 562.5564939975739
Epoch: 18/20
train loss: 1.4281302664279516 acc: 0.6621374135995747time elapsed(s): 524.1140892505646
test loss: 1.299570355494817 acc: 0.6944761904761905time elapsed(s): 539.7812941074371
Epoch: 19/20
train loss: 1.3836128368136549
                                acc: 0.6720387546523306time elapsed(s): 502.5177438259125
                               acc: 0.6876190476190477time elapsed(s): 516.0126330852509
test loss: 1.2697593470528012
Epoch: 20/20
train loss: 1.346708839589131
                               acc: 0.6778046907307852time elapsed(s): 553.5443570613861
test loss: 1.2127065852483114 acc: 0.7135238095238096time elapsed(s): 569.5401692390442
```