

WARNING flwr 2024-03-23 09:58:05,646 | logger.py:118 |
DEPRECATED FEATURE: `FedXgbNnAvg` strategy

This is a deprecated feature. It will be removed
entirely in future versions of Flower.

WARNING flwr 2024-03-23 09:58:05,647 | app.py:211 | Both server and strategy
were provided, ignoring strategy
INFO flwr 2024-03-23 09:58:05,649 | app.py:178 | Starting Flower simulation, config:
ServerConfig(num_rounds=10, round_timeout=None)
Data partitioned across 25 clients and 0.0 of local dataset reserved for validation.
FL experiment configured for 10 rounds with 25 client in the pool.
FL round will proceed with 100.0% of clients sampled, at least 1.
2024-03-23 09:58:11,378 INFO worker.py:1621 -- Started a local Ray instance.
INFO flwr 2024-03-23 09:58:12,951 | app.py:213 | Flower VCE: Ray initialized with
resources: {'memory': 70429599130.0, 'object_store_memory': 34469828198.0,
'node:10.10.1.148': 1.0, 'node:__internal_head__': 1.0, 'CPU': 40.0, 'GPU': 1.0}
INFO flwr 2024-03-23 09:58:12,954 | app.py:219 | Optimize your simulation with
Flower VCE: <https://flower.dev/docs/framework/how-to-run-simulations.html>
INFO flwr 2024-03-23 09:58:12,955 | app.py:242 | Flower VCE: Resources for each
Virtual Client: {'num_cpus': 1}
INFO flwr 2024-03-23 09:58:12,988 | app.py:288 | Flower VCE: Creating
VirtualClientEngineActorPool with 40 actors
INFO flwr 2024-03-23 09:58:12,990 | 2437557820.py:20 | Initializing global
parameters
INFO flwr 2024-03-23 09:58:12,991 | 2437557820.py:226 | Requesting initial
parameters from one random client
[2m[36m(DefaultActor pid=701885)[0m /home/user/.local/lib/python3.10/site-
packages/torch/cuda/__init__.py:141: UserWarning: CUDA initialization: Unexpected
error from cudaGetDeviceCount(). Did you run some cuda functions before calling
NumCudaDevices() that might have already set an error? Error 803: system has
unsupported display driver / cuda driver combination (Triggered internally at ../c10/
cuda/CUDAFunctions.cpp:108.)
[2m[36m(DefaultActor pid=701885)[0m return torch._C._cuda_getDeviceCount() >
0
[2m[36m(DefaultActor pid=701885)[0m /home/user/.local/lib/python3.10/site-
packages/torch/utils/data/_utils/collate.py:183: UserWarning: The given NumPy array
is not writable, and PyTorch does not support non-writable tensors. This means
writing to this tensor will result in undefined behavior. You may want to copy the array
to protect its data or make it writable before converting it to a tensor. This type of
warning will be suppressed for the rest of this program. (Triggered internally at ../
torch/csrc/utils/tensor_numpy.cpp:206.)
[2m[36m(DefaultActor pid=701885)[0m return collate([torch.as_tensor(b) for b in
batch], collate_fn_map=collate_fn_map)
INFO flwr 2024-03-23 09:58:21,393 | 2437557820.py:231 | Received initial
parameters from one random client
INFO flwr 2024-03-23 09:58:21,397 | 2437557820.py:23 | Evaluating initial
parameters
f off
INFO flwr 2024-03-23 09:59:27,791 | 2437557820.py:26 | initial parameters (loss,

other metrics): 0.024166456080209685, {'accuracy': tensor(0.0013)}

INFO flwr 2024-03-23 09:59:27,792 | 2437557820.py:36 | FL starting

DEBUG flwr 2024-03-23 09:59:27,793 | 2437557820.py:165 | fit_round 1: strategy sampled 25 clients (out of 25)

Evaluation on the server: test_loss=0.0242, test_accuracy=0.0013

Configuring round 1

[2m[36m(DefaultActor pid=701885)[0m Client 15: only had its own tree

[2m[36m(DefaultActor pid=701884)[0m /home/user/.local/lib/python3.10/site-packages/torch/cuda/__init__.py:141: UserWarning: CUDA initialization: Unexpected error from cudaGetDeviceCount(). Did you run some cuda functions before calling NumCudaDevices() that might have already set an error? Error 803: system has unsupported display driver / cuda driver combination (Triggered internally at ../c10/cuda/CUDAFunctions.cpp:108.)

[2m[36m(DefaultActor pid=701884)[0m return torch._C._cuda_getDeviceCount() > 0

[2m[36m(DefaultActor pid=701883)[0m /home/user/.local/lib/python3.10/site-packages/torch/cuda/__init__.py:141: UserWarning: CUDA initialization: Unexpected error from cudaGetDeviceCount(). Did you run some cuda functions before calling NumCudaDevices() that might have already set an error? Error 803: system has unsupported display driver / cuda driver combination (Triggered internally at ../c10/cuda/CUDAFunctions.cpp:108.)

[2m[36m(DefaultActor pid=701883)[0m return torch._C._cuda_getDeviceCount() > 0

[2m[36m(DefaultActor pid=701884)[0m /home/user/.local/lib/python3.10/site-packages/torch/autograd/_utils/collate.py:183: UserWarning: The given NumPy array is not writable, and PyTorch does not support non-writable tensors. This means writing to this tensor will result in undefined behavior. You may want to copy the array to protect its data or make it writable before converting it to a tensor. This type of warning will be suppressed for the rest of this program. (Triggered internally at ../torch/csrc/autograd/utils/tensor_numpy.cpp:206.)

[2m[36m(DefaultActor pid=701884)[0m return collate([torch.as_tensor(b) for b in batch], collate_fn_map=collate_fn_map)

[2m[36m(DefaultActor pid=701885)[0m Client 15: training for 50 iterations/updates

[2m[36m(DefaultActor pid=701885)[0m Client 15: training round complete, 3200 examples processed

[2m[36m(DefaultActor pid=701883)[0m Client 11: only had its own tree[32m [repeated 2x across cluster][0m

[2m[36m(DefaultActor pid=701874)[0m /home/user/.local/lib/python3.10/site-packages/torch/cuda/__init__.py:141: UserWarning: CUDA initialization: Unexpected error from cudaGetDeviceCount(). Did you run some cuda functions before calling NumCudaDevices() that might have already set an error? Error 803: system has unsupported display driver / cuda driver combination (Triggered internally at ../c10/cuda/CUDAFunctions.cpp:108.)[32m [repeated 9x across cluster][0m

[2m[36m(DefaultActor pid=701874)[0m return torch._C._cuda_getDeviceCount() > 0[32m [repeated 9x across cluster][0m

[2m[36m(DefaultActor pid=701875)[0m /home/user/.local/lib/python3.10/site-packages/torch/autograd/_utils/collate.py:183: UserWarning: The given NumPy array is not writable, and PyTorch does not support non-writable tensors. This means writing to this tensor will result in undefined behavior. You may want to copy the array to protect its data or make it writable before converting it to a tensor. This type of

warning will be suppressed for the rest of this program. (Triggered internally at ../torch/csrc/utils/tensor_numpy.cpp:206.)[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701875)[0m return collate([torch.as_tensor(b) for b in batch], collate_fn_map=collate_fn_map)[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701884)[0m Client 8: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701883)[0m Client 11: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701875)[0m Client 23: only had its own tree[32m [repeated 8x across cluster][0m
[2m[36m(DefaultActor pid=701883)[0m Client 11: training round complete, 3200 examples processed
[2m[36m(DefaultActor pid=701865)[0m /home/user/.local/lib/python3.10/site-packages/torch/cuda/__init__.py:141: UserWarning: CUDA initialization: Unexpected error from cudaGetDeviceCount(). Did you run some cuda functions before calling NumCudaDevices() that might have already set an error? Error 803: system has unsupported display driver / cuda driver combination (Triggered internally at ../c10/cuda/CUDAFunctions.cpp:108.)[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701865)[0m return torch._C._cuda_getDeviceCount() > 0[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701865)[0m /home/user/.local/lib/python3.10/site-packages/torch/utils/data/_utils/collate.py:183: UserWarning: The given NumPy array is not writable, and PyTorch does not support non-writable tensors. This means writing to this tensor will result in undefined behavior. You may want to copy the array to protect its data or make it writable before converting it to a tensor. This type of warning will be suppressed for the rest of this program. (Triggered internally at ../torch/csrc/utils/tensor_numpy.cpp:206.)[32m [repeated 10x across cluster][0m
[2m[36m(DefaultActor pid=701865)[0m return collate([torch.as_tensor(b) for b in batch], collate_fn_map=collate_fn_map)[32m [repeated 10x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 18: training for 50 iterations/updates[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701863)[0m Client 3: only had its own tree[32m [repeated 11x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 18: training round complete, 3200 examples processed[32m [repeated 8x across cluster][0m
[2m[36m(DefaultActor pid=701866)[0m Client 6: training for 50 iterations/updates[32m [repeated 11x across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 17: only had its own tree[32m [repeated 3x across cluster][0m
DEBUG flwr 2024-03-23 09:59:52,397 | 2437557820.py:180 | fit_round 1 received 25 results and 0 failures
WARNING flwr 2024-03-23 09:59:52,416 | fedxgb_nn_avg.py:102 | No fit_metrics_aggregation_fn provided
Server side aggregated 25 trees.
f off
[2m[36m(DefaultActor pid=701860)[0m Client 17: training round complete, 3200 examples processed[32m [repeated 15x across cluster][0m
INFO flwr 2024-03-23 10:00:53,152 | 2437557820.py:51 | fit progress: (1, 0.001619655063589414, {'accuracy': tensor(0.9987)}, 85.35947940799815)
INFO flwr 2024-03-23 10:00:53,155 | 2437557820.py:98 | evaluate_round 1: no clients selected, cancel
DEBUG flwr 2024-03-23 10:00:53,156 | 2437557820.py:165 | fit_round 2: strategy

sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0016, test_accuracy=0.9987
Configuring round 2
[2m[36m(DefaultActor pid=701860)[0m Client 20: recieved 25 trees
[2m[36m(DefaultActor pid=701860)[0m Client 17: training for 50 iterations/
updates[32m [repeated 4x across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 20: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701870)[0m Client 5: recieved 25 trees[32m [repeated 7x
across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 20: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701862)[0m Client 18: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701865)[0m Client 4: training round complete, 3200
examples processed[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 10: recieved 25 trees[32m [repeated
9x across cluster][0m
[2m[36m(DefaultActor pid=701869)[0m Client 12: training for 50 iterations/
updates[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701873)[0m Client 8: training round complete, 3200
examples processed[32m [repeated 4x across cluster][0m
[2m[36m(DefaultActor pid=701882)[0m Client 13: recieved 25 trees[32m [repeated
6x across cluster][0m
[2m[36m(DefaultActor pid=701875)[0m Client 7: training for 50 iterations/
updates[32m [repeated 7x across cluster][0m
DEBUG flwr 2024-03-23 10:01:16,706 | 2437557820.py:180 | fit_round 2 received 25
results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:02:20,296 | 2437557820.py:51 | fit progress: (2,
0.00019261229448054592, {'accuracy': tensor(0.9987)}, 172.50308629900974)
INFO flwr 2024-03-23 10:02:20,298 | 2437557820.py:98 | evaluate_round 2: no
clients selected, cancel
DEBUG flwr 2024-03-23 10:02:20,299 | 2437557820.py:165 | fit_round 3: strategy
sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
Configuring round 3
[2m[36m(DefaultActor pid=701885)[0m Client 16: training round complete, 3200
examples processed[32m [repeated 13x across cluster][0m
[2m[36m(DefaultActor pid=701885)[0m Client 6: recieved 25 trees[32m [repeated 3x
across cluster][0m
[2m[36m(DefaultActor pid=701885)[0m Client 16: training for 50 iterations/
updates[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 19: recieved 25 trees[32m [repeated
9x across cluster][0m
[2m[36m(DefaultActor pid=701883)[0m Client 1: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701883)[0m Client 1: training round complete, 3200
examples processed
[2m[36m(raylet)[0m Spilled 2945 MiB, 5 objects, write throughput 355 MiB/s. Set
RAY_verbose_spill_logs=0 to disable this message.
[2m[36m(raylet)[0m Spilled 4712 MiB, 8 objects, write throughput 496 MiB/s.

[2m[36m(DefaultActor pid=701866)[0m Client 13: recieved 25 trees[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701879)[0m Client 8: training for 50 iterations/updates[32m [repeated 6x across cluster][0m
[2m[36m(DefaultActor pid=701879)[0m Client 8: training round complete, 3200 examples processed[32m [repeated 6x across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 14: recieved 25 trees[32m [repeated 8x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 19: training for 50 iterations/updates[32m [repeated 8x across cluster][0m
[2m[36m(DefaultActor pid=701876)[0m Client 19: training round complete, 3200 examples processed[32m [repeated 8x across cluster][0m
DEBUG flwr 2024-03-23 10:02:42,793 | 2437557820.py:180 | fit_round 3 received 25 results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:03:45,784 | 2437557820.py:51 | fit progress: (3, 0.00014857222316042878, {'accuracy': tensor(0.9987)}, 257.9911606370006)
INFO flwr 2024-03-23 10:03:45,786 | 2437557820.py:98 | evaluate_round 3: no clients selected, cancel
DEBUG flwr 2024-03-23 10:03:45,787 | 2437557820.py:165 | fit_round 4: strategy sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0001, test_accuracy=0.9987
Configuring round 4
[2m[36m(DefaultActor pid=701860)[0m Client 19: recieved 25 trees
[2m[36m(DefaultActor pid=701860)[0m Client 14: training for 50 iterations/updates[32m [repeated 10x across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 14: training round complete, 3200 examples processed[32m [repeated 10x across cluster][0m
[2m[36m(DefaultActor pid=701865)[0m Client 14: recieved 25 trees
[2m[36m(DefaultActor pid=701860)[0m Client 19: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701862)[0m Client 11: recieved 25 trees[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701860)[0m Client 19: training round complete, 3200 examples processed
[2m[36m(DefaultActor pid=701865)[0m Client 14: training for 50 iterations/updates
[2m[36m(raylet)[0m Spilled 8246 MiB, 14 objects, write throughput 534 MiB/s.
[2m[36m(DefaultActor pid=701878)[0m Client 4: recieved 25 trees[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701869)[0m Client 17: training round complete, 3200 examples processed[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701867)[0m Client 1: training for 50 iterations/updates[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701885)[0m Client 10: recieved 25 trees[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701878)[0m Client 4: training round complete, 3200 examples processed[32m [repeated 8x across cluster][0m
[2m[36m(DefaultActor pid=701879)[0m Client 0: training for 50 iterations/updates[32m [repeated 11x across cluster][0m
DEBUG flwr 2024-03-23 10:04:07,977 | 2437557820.py:180 | fit_round 4 received 25

results and 0 failures

Server side aggregated 25 trees.

f off

INFO flwr 2024-03-23 10:05:16,087 | 2437557820.py:51 | fit progress: (4, 0.00014875506768032945, {'accuracy': tensor(0.9987)}, 348.2943165750039)

INFO flwr 2024-03-23 10:05:16,089 | 2437557820.py:98 | evaluate_round 4: no clients selected, cancel

DEBUG flwr 2024-03-23 10:05:16,090 | 2437557820.py:165 | fit_round 5: strategy sampled 25 clients (out of 25)

Evaluation on the server: test_loss=0.0001, test_accuracy=0.9987

Configuring round 5

[2m[36m(DefaultActor pid=701885)[0m Client 10: recieved 25 trees

[2m[36m(DefaultActor pid=701885)[0m Client 10: training round complete, 3200 examples processed[32m [repeated 9x across cluster]][0m

[2m[36m(DefaultActor pid=701885)[0m Client 10: training for 50 iterations/updates[32m [repeated 5x across cluster]][0m

[2m[36m(DefaultActor pid=701881)[0m Client 22: recieved 25 trees

[2m[36m(DefaultActor pid=701877)[0m Client 8: recieved 25 trees[32m [repeated 8x across cluster]][0m

[2m[36m(DefaultActor pid=701883)[0m Client 3: training for 50 iterations/updates

[2m[36m(DefaultActor pid=701883)[0m Client 3: training round complete, 3200 examples processed

[2m[36m(DefaultActor pid=701864)[0m Client 9: recieved 25 trees[32m [repeated 10x across cluster]][0m

[2m[36m(DefaultActor pid=701882)[0m Client 21: training for 50 iterations/updates[32m [repeated 6x across cluster]][0m

[2m[36m(DefaultActor pid=701882)[0m Client 21: training round complete, 3200 examples processed[32m [repeated 6x across cluster]][0m

[2m[36m(DefaultActor pid=701865)[0m Client 1: recieved 25 trees[32m [repeated 5x across cluster]][0m

[2m[36m(DefaultActor pid=701870)[0m Client 5: training for 50 iterations/updates[32m [repeated 12x across cluster]][0m

[2m[36m(DefaultActor pid=701874)[0m Client 18: training round complete, 3200 examples processed[32m [repeated 11x across cluster]][0m

DEBUG flwr 2024-03-23 10:05:38,012 | 2437557820.py:180 | fit_round 5 received 25 results and 0 failures

Server side aggregated 25 trees.

f off

INFO flwr 2024-03-23 10:06:40,955 | 2437557820.py:51 | fit progress: (5, 0.00015177380217859496, {'accuracy': tensor(0.9987)}, 433.1616378730105)

INFO flwr 2024-03-23 10:06:40,956 | 2437557820.py:98 | evaluate_round 5: no clients selected, cancel

DEBUG flwr 2024-03-23 10:06:40,957 | 2437557820.py:165 | fit_round 6: strategy sampled 25 clients (out of 25)

Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987

Configuring round 6

[2m[36m(DefaultActor pid=701865)[0m Client 22: recieved 25 trees

[2m[36m(DefaultActor pid=701865)[0m Client 1: training for 50 iterations/updates[32m [repeated 6x across cluster]][0m

[2m[36m(DefaultActor pid=701865)[0m Client 1: training round complete, 3200

examples processed[32m [repeated 7x across cluster]][0m
[2m[36m(DefaultActor pid=701866)[0m Client 23: recieved 25 trees
[2m[36m(DefaultActor pid=701876)[0m Client 12: recieved 25 trees[32m [repeated
9x across cluster]][0m
[2m[36m(DefaultActor pid=701866)[0m Client 23: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701866)[0m Client 23: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701882)[0m Client 1: recieved 25 trees[32m [repeated 8x
across cluster]][0m
[2m[36m(DefaultActor pid=701867)[0m Client 7: training for 50 iterations/
updates[32m [repeated 8x across cluster]][0m
[2m[36m(DefaultActor pid=701867)[0m Client 7: training round complete, 3200
examples processed[32m [repeated 8x across cluster]][0m
[2m[36m(DefaultActor pid=701885)[0m Client 14: recieved 25 trees[32m [repeated
6x across cluster]][0m
[2m[36m(DefaultActor pid=701883)[0m Client 18: training for 50 iterations/
updates[32m [repeated 12x across cluster]][0m
DEBUG flwr 2024-03-23 10:07:02,440 | 2437557820.py:180 | fit_round 6 received 25
results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:08:08,274 | 2437557820.py:51 | fit progress: (6,
0.00015331577357064795, {'accuracy': tensor(0.9987)}, 520.4813172209979)
INFO flwr 2024-03-23 10:08:08,276 | 2437557820.py:98 | evaluate_round 6: no
clients selected, cancel
DEBUG flwr 2024-03-23 10:08:08,277 | 2437557820.py:165 | fit_round 7: strategy
sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
Configuring round 7
[2m[36m(DefaultActor pid=701885)[0m Client 14: training round complete, 3200
examples processed[32m [repeated 16x across cluster]][0m
[2m[36m(DefaultActor pid=701885)[0m Client 18: recieved 25 trees
[2m[36m(DefaultActor pid=701885)[0m Client 14: training for 50 iterations/
updates[32m [repeated 4x across cluster]][0m
[2m[36m(DefaultActor pid=701880)[0m Client 10: recieved 25 trees
[2m[36m(DefaultActor pid=701875)[0m Client 11: recieved 25 trees[32m [repeated
9x across cluster]][0m
[2m[36m(DefaultActor pid=701880)[0m Client 10: training for 50 iterations/updates
[2m[36m(raylet)[0m Spilled 18259 MiB, 31 objects, write throughput 612 MiB/s.
[2m[36m(DefaultActor pid=701880)[0m Client 10: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701879)[0m
[2m[36m(DefaultActor pid=701869)[0m Client 6: recieved 25 trees[32m [repeated 9x
across cluster]][0m
[2m[36m(DefaultActor pid=701878)[0m Client 2: training for 50 iterations/
updates[32m [repeated 9x across cluster]][0m
[2m[36m(DefaultActor pid=701878)[0m Client 2: training round complete, 3200
examples processed[32m [repeated 9x across cluster]][0m
[2m[36m(DefaultActor pid=701866)[0m Client 24: recieved 25 trees[32m [repeated
5x across cluster]][0m

[2m[36m(DefaultActor pid=701865)[0m Client 1: training for 50 iterations/
updates[32m [repeated 14x across cluster][0m
DEBUG flwr 2024-03-23 10:08:29,740 | 2437557820.py:180 | fit_round 7 received 25
results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:09:31,633 | 2437557820.py:51 | fit progress: (7,
0.00015474708891261195, {'accuracy': tensor(0.9987)}), 603.8397377350047)
INFO flwr 2024-03-23 10:09:31,634 | 2437557820.py:98 | evaluate_round 7: no
clients selected, cancel
DEBUG flwr 2024-03-23 10:09:31,635 | 2437557820.py:165 | fit_round 8: strategy
sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
Configuring round 8
[2m[36m(DefaultActor pid=701866)[0m Client 24: training round complete, 3200
examples processed[32m [repeated 15x across cluster][0m
[2m[36m(DefaultActor pid=701866)[0m Client 10: recieved 25 trees
[2m[36m(DefaultActor pid=701866)[0m Client 24: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701865)[0m Client 0: recieved 25 trees
[2m[36m(DefaultActor pid=701862)[0m Client 18: recieved 25 trees[32m [repeated
11x across cluster][0m
[2m[36m(DefaultActor pid=701866)[0m Client 10: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701870)[0m Client 15: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701879)[0m Client 5: recieved 25 trees[32m [repeated 6x
across cluster][0m
[2m[36m(DefaultActor pid=701874)[0m Client 20: training for 50 iterations/
updates[32m [repeated 7x across cluster][0m
[2m[36m(DefaultActor pid=701873)[0m Client 16: training round complete, 3200
examples processed[32m [repeated 9x across cluster][0m
[2m[36m(DefaultActor pid=701883)[0m Client 23: recieved 25 trees[32m [repeated
6x across cluster][0m
[2m[36m(DefaultActor pid=701879)[0m Client 5: training for 50 iterations/
updates[32m [repeated 11x across cluster][0m
[2m[36m(DefaultActor pid=701885)[0m Client 4: training round complete, 3200
examples processed[32m [repeated 12x across cluster][0m
DEBUG flwr 2024-03-23 10:09:52,730 | 2437557820.py:180 | fit_round 8 received 25
results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:11:00,158 | 2437557820.py:51 | fit progress: (8,
0.00015337541617502215, {'accuracy': tensor(0.9987)}), 692.3655092350091)
INFO flwr 2024-03-23 10:11:00,160 | 2437557820.py:98 | evaluate_round 8: no
clients selected, cancel
DEBUG flwr 2024-03-23 10:11:00,161 | 2437557820.py:165 | fit_round 9: strategy
sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
Configuring round 9
[2m[36m(DefaultActor pid=701880)[0m Client 14: recieved 25 trees
[2m[36m(DefaultActor pid=701883)[0m Client 23: training for 50 iterations/

updates[32m [repeated 6x across cluster]][0m
[2m[36m(DefaultActor pid=701883)[0m Client 23: training round complete, 3200
examples processed[32m [repeated 3x across cluster]][0m
[2m[36m(DefaultActor pid=701883)[0m Client 8: recieved 25 trees
[2m[36m(DefaultActor pid=701880)[0m Client 14: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701877)[0m Client 17: recieved 25 trees[32m [repeated
9x across cluster]][0m
[2m[36m(DefaultActor pid=701880)[0m Client 14: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701883)[0m Client 8: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701860)[0m Client 6: recieved 25 trees[32m [repeated 8x
across cluster]][0m
[2m[36m(DefaultActor pid=701877)[0m Client 17: training round complete, 3200
examples processed[32m [repeated 7x across cluster]][0m
[2m[36m(DefaultActor pid=701872)[0m Client 10: training for 50 iterations/
updates[32m [repeated 9x across cluster]][0m
[2m[36m(DefaultActor pid=701870)[0m Client 22: recieved 25 trees[32m [repeated
6x across cluster]][0m
[2m[36m(DefaultActor pid=701869)[0m Client 11: training round complete, 3200
examples processed[32m [repeated 10x across cluster]][0m
DEBUG flwr 2024-03-23 10:11:20,952 | 2437557820.py:180 | fit_round 9 received 25
results and 0 failures
[2m[36m(DefaultActor pid=701870)[0m Client 22: training for 50 iterations/
updates[32m [repeated 14x across cluster]][0m
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:12:26,386 | 2437557820.py:51 | fit progress: (9,
0.00015714007868051903, {'accuracy': tensor(0.9987)}), 778.5933289380046)
INFO flwr 2024-03-23 10:12:26,388 | 2437557820.py:98 | evaluate_round 9: no
clients selected, cancel
DEBUG flwr 2024-03-23 10:12:26,388 | 2437557820.py:165 | fit_round 10: strategy
sampled 25 clients (out of 25)
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
Configuring round 10
[2m[36m(DefaultActor pid=701870)[0m Client 18: recieved 25 trees
[2m[36m(DefaultActor pid=701870)[0m Client 22: training round complete, 3200
examples processed[32m [repeated 7x across cluster]][0m
[2m[36m(DefaultActor pid=701864)[0m Client 8: recieved 25 trees
[2m[36m(DefaultActor pid=701870)[0m Client 18: training for 50 iterations/updates
[2m[36m(DefaultActor pid=701870)[0m Client 18: training round complete, 3200
examples processed
[2m[36m(DefaultActor pid=701871)[0m Client 22: recieved 25 trees[32m [repeated
10x across cluster]][0m
[2m[36m(DefaultActor pid=701860)[0m Client 21: training for 50 iterations/
updates[32m [repeated 7x across cluster]][0m
[2m[36m(DefaultActor pid=701865)[0m Client 6: training round complete, 3200
examples processed[32m [repeated 7x across cluster]][0m
[2m[36m(DefaultActor pid=701882)[0m Client 10: recieved 25 trees[32m [repeated
7x across cluster]][0m
[2m[36m(DefaultActor pid=701878)[0m Client 5: training for 50 iterations/

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updates[32m [repeated 9x across cluster]][0m
[2m[36m(DefaultActor pid=701868)[0m Client 14: training round complete, 3200
examples processed[32m [repeated 8x across cluster]][0m
[2m[36m(DefaultActor pid=701880)[0m Client 4: recieved 25 trees[32m [repeated 6x
across cluster]][0m
DEBUG flwr 2024-03-23 10:12:47,531 | 2437557820.py:180 | fit_round 10 received
25 results and 0 failures
Server side aggregated 25 trees.
f off
INFO flwr 2024-03-23 10:13:49,756 | 2437557820.py:51 | fit progress: (10,
0.00016268886188082859, {'accuracy': tensor(0.9987)}, 861.9628989350022)
INFO flwr 2024-03-23 10:13:49,757 | 2437557820.py:98 | evaluate_round 10: no
clients selected, cancel
INFO flwr 2024-03-23 10:13:49,758 | 2437557820.py:79 | FL finished in
861.9651021280006
INFO flwr 2024-03-23 10:13:49,759 | app.py:226 | app_fit: losses_distributed []
INFO flwr 2024-03-23 10:13:49,759 | app.py:227 | app_fit: metrics_distributed_fit {}
INFO flwr 2024-03-23 10:13:49,760 | app.py:228 | app_fit: metrics_distributed {}
INFO flwr 2024-03-23 10:13:49,760 | app.py:229 | app_fit: losses_centralized [(0,
0.024166456080209685), (1, 0.001619655063589414), (2,
0.00019261229448054592), (3, 0.00014857222316042878), (4,
0.00014875506768032945), (5, 0.00015177380217859496), (6,
0.00015331577357064795), (7, 0.00015474708891261195), (8,
0.00015337541617502215), (9, 0.00015714007868051903), (10,
0.00016268886188082859)]
INFO flwr 2024-03-23 10:13:49,763 | app.py:230 | app_fit: metrics_centralized
{'accuracy': [(0, tensor(0.0013)), (1, tensor(0.9987)), (2, tensor(0.9987)), (3,
tensor(0.9987)), (4, tensor(0.9987)), (5, tensor(0.9987)), (6, tensor(0.9987)), (7,
tensor(0.9987)), (8, tensor(0.9987)), (9, tensor(0.9987)), (10, tensor(0.9987))]}
Evaluation on the server: test_loss=0.0002, test_accuracy=0.9987
History (loss, centralized):
    round 0: 0.024166456080209685
    round 1: 0.001619655063589414
    round 2: 0.00019261229448054592
    round 3: 0.00014857222316042878
    round 4: 0.00014875506768032945
    round 5: 0.00015177380217859496
    round 6: 0.00015331577357064795
    round 7: 0.00015474708891261195
    round 8: 0.00015337541617502215
    round 9: 0.00015714007868051903
    round 10: 0.00016268886188082859
History (metrics, centralized):
{'accuracy': [(0, tensor(0.0013)), (1, tensor(0.9987)), (2, tensor(0.9987)), (3,
tensor(0.9987)), (4, tensor(0.9987)), (5, tensor(0.9987)), (6, tensor(0.9987)), (7,
tensor(0.9987)), (8, tensor(0.9987)), (9, tensor(0.9987)), (10, tensor(0.9987))]}
```

Time = 15m 45s