

FL Simulation Results

File: test1_tf

Federated Learning Configuration

Total Clients (N): 5
Malicious Clients (M): 3
Neural Network: MyNN
Training Rounds: 5
Poisoned Rounds (R): 3
Distribution Strategy: first

Data Poisoning Attack Parameters

Poisoning Operation: Label Flip
Attack Intensity: 10.0% (0.10)
Poisoned Data Percentage: 20.0% (0.20)

Attack Summary: Using label_flip with 10.0% (0.10) intensity on 20.0% (0.20) of data for 3 rounds with 3 malicious clients.

Simulation Results

Init Accuracy: 0.7334
Clean Accuracy: 0.8565
Poisoned Accuracy: 0.7038
Poisoned + DP Protection Accuracy: 0.6882
Drop (Clean - Poisoned): 0.1527
Drop (Clean - Init): 0.1231
Drop (Poisoned - Init): -0.0296
Drop (Poisoned DP - Init): -0.0452
DP Protection Method: krum
GPU Used: GPU 0

Confusion Matrix Metrics (Weighted Avg):

Clean Precision: 0.8596

Clean Recall: 0.8565

Clean F1 Score: 0.8557

Poisoned Precision: 0.7028

Poisoned Recall: 0.7169

Poisoned F1 Score: 0.7058

DP Protection Precision: 0.6839

DP Protection Recall: 0.7012

DP Protection F1 Score: 0.6875

Summary

FL Simulation Complete

Task: a9df2cba-864f-4a04-a2f9-1452c5ea3b83

GPU: GPU 0

Init Accuracy: 0.7334

Clean Accuracy: 0.8565

Poisoned Accuracy: 0.7038

Data Poison Protection Accuracy: 0.6882

Drop (Clean - Poisoned): 0.1527

Drop (Clean - Init): 0.1231

Drop (Poisoned - Init): -0.0296

Drop (Poisoned_DP - Init): -0.0452

Data Poison Protection Method: krum

--- Confusion Matrix Metrics (Weighted Avg) ---

Clean Precision: 0.8596

Clean Recall: 0.8565

Clean F1 Score: 0.8557

Poisoned Precision: 0.7028

Poisoned Recall: 0.7169

Poisoned F1 Score: 0.7058

DP Protection Precision: 0.6839

DP Protection Recall: 0.7012

DP Protection F1 Score: 0.6875