ReparoML — Printable README

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ReparoML demonstrates energy-bounded self-repair using TGRM in PyTorch. Quickstart: 1) Train baseline (MNIST) and save checkpoint 2) Inject faults (weight noise, bias drift, layer dropout) 3) Repair with TGRM (bounded parameter updates) 4) Compare with retrain baseline (higher energy use) 5) Plot results and compute BPI Key Files: - experiments/run_mnist_cnn.py — orchestrates phases - reparoml/tgrm.py — TGRM repair operator - reparoml/faults.py — controlled degradation modes - reparoml/metrics.py — accuracy, energy proxy, BPI - experiments/plot_runs.py — figures for papers & README Outputs: - CSV logs (metrics.csv) - Checkpoints (*.pt) - Figures (PNG) - These PDFs in /docs/