GPU Vector Addition Performance Report

Experiment: CPU vs GPU vector addition using NumPy and CuPy

Observation: GPU acceleration does not outperform CPU for moderate vector sizes.
Reason: kernel launch overhead and host-device memory transfer dominate computation.

Conclusion: GPUs provide benefits when workload size is large enough to amortize overhead.

GPU Environment:
  GPU Device: UnknownVendor-GPU CC8.6
  GPU Memory: Unknown
  CUDA Version: 11.8
  CuPy Version: 13.4.1
Unit Test Verification:
  All unit tests passed successfully ■