Hands-on: Resource Monitoring Tools

🖥️ GPU Monitoring

`nvidia-smi`

Real-time GPU utilization, memory, temperature

`watch -n 1 nvidia-smi`

Auto-refresh every second

💻 CPU & System

`htop` / `top`

CPU and system memory monitoring

PyTorch Memory Tools

`torch.cuda.memory_summary()`   `torch.cuda.memory_allocated()`

TensorBoard
Visualize training metrics & memory over time

NVIDIA Nsight
Detailed profiling of GPU operations

W&B / MLflow
Track experiments & resource usage

📊 Practice Workflow

Monitor during training → Identify bottlenecks → Optimize