Training Report

Run ID: 0f6d2ada7a914580b7705fc82adec6d8
Status: FINISHED
Start: 2026-02-05 04:52:26.266000
End: 2026-02-05 05:18:02.484000
Duration (sec): 1536.218

Parameters

Parameter	Value	Description
base_model_path	/mnt/c/Users/operator/emtac/models/llm/mistral-7b-instruct	
dataset_hash	c0b17d026fd5ff6d63d4b754a464862dca5ba0927cf9e0e9f382f1d582f5891f	
dataset_path	/mnt/c/Users/operator/PycharmProjects/gpu_train/dataset_output/qna_training__complete/v001/qna_training__complete.jsonl	
dataset_size	527	
dataset_version	v001	
device_type	cuda	
effective_batch_size	4	
enable_lora	True	Whether LoRA (Low-Rank Adaptation) fine-tuning is enabled
enable_mlflow	False	
epochs	1	Total number of training epochs
extra_args	[]	
extra_env	{}	
fsdp_auto_wrap_policy	transformer	
fsdp_min_num_params	100000000	
fsdp_sharding_strategy	FULL_SHARD	How model parameters are split across GPUs (FULL_SHARD = maximum memory savings)
gpu_name	NVIDIA GeForce RTX 5090	
gradient_accumulation_steps	4	Number of steps to accumulate gradients before updating (simulates larger batch)
job_name	mistral7b_mini_lora	
learning_rate	2e-06	Step size for weight updates during training (lower = more cautious learning)

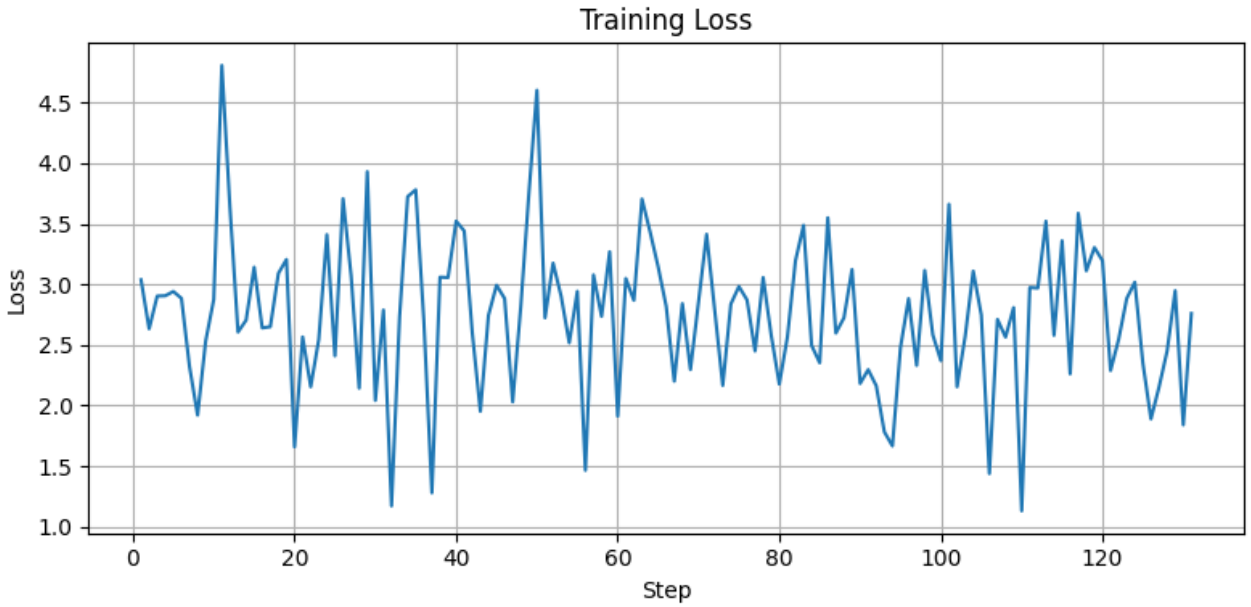
max_seq_length	1024	Maximum input sequence length in tokens (longer = more context but more memory)
mixed_precision	bf16	Precision format for calculations (bf16 = faster training with lower memory usage)
nnodes	1	Number of machines/nodes used for distributed training
node_rank	0	Identifier for this node in multi-node training (0 = primary node)
num_train_epochs	1.0	Number of complete passes through the training dataset
output_dir	/mnt/c/Users/operator/PycharmProjects/gpu_train/prod_out/mistral7b_mini	
per_device_eval_batch_size	1	
per_device_train_batch_size	1	Number of training samples processed together per device
rdzv_backend	c10d	
resume_strict	True	
seed	42	Random seed for reproducible training runs
trainer	sft_fsdp	
training_policy	{'register_model': True, 'registry_name': 'emtac_mistral_sft', 'dataset_hash': 'c0b17d026fd5ff6d63d4b754a464862dca5ba0927cf9e0e9f382f1d582f5891f', 'dataset_name': 'qna_training__complete', 'dataset_version': 'v001'}	
train_data_path	/mnt/c/Users/operator/PycharmProjects/gpu_train/dataset_output/qna_training__complete/v001/qna_training__complete.jsonl	
warmup_ratio	0.03	Fraction of training for learning rate warmup (stabilizes early training)
weight_decay	0.0	Regularization to prevent overfitting (penalizes large weights)
world_size	1	

Metrics

Metric	Value	Description

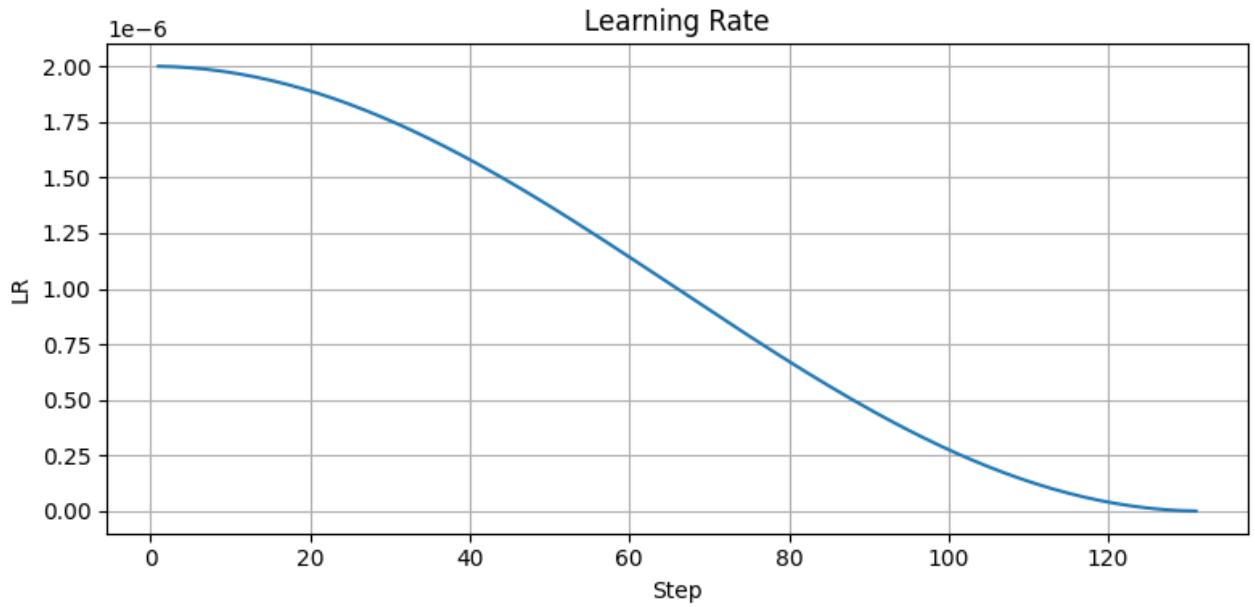
gpu_memory_total_mb	32607.0	GPU utilization / memory telemetry collected during training
gpu_memory_used_mb	32206.2421875	GPU utilization / memory telemetry collected during training
gpu_memory_utilization_pct	98.77094546416414	GPU utilization / memory telemetry collected during training
gpu_peak_memory_allocated_mb	55406.88818359375	GPU utilization / memory telemetry collected during training
gpu_power_watts	149.038	GPU utilization / memory telemetry collected during training
gpu_temperature_c	42.0	GPU utilization / memory telemetry collected during training
gpu_torch_max_memory_allocated_mb	55406.88818359375	GPU utilization / memory telemetry collected during training
gpu_torch_memory_allocated_mb	27718.2529296875	GPU utilization / memory telemetry collected during training
gpu_torch_memory_reserved_mb	56412.0	GPU utilization / memory telemetry collected during training
gpu_utilization_pct	55.0	GPU utilization / memory telemetry collected during training
grad_norm	6.90625	Gradient norm magnitude (stability indicator)
lr	2.8320530687087055e-10	Learning rate at final training step
train_loss	2.7596964836120605	Final training loss value (lower is better)

Loss Curve



How to read this chart: The loss curve shows how well the model is learning over time. The y-axis shows the loss value (lower is better), and the x-axis shows training steps. A good training run shows a general downward trend, indicating the model is improving. Some fluctuation is normal, but large spikes or plateaus may indicate learning rate issues, data quality problems, or the need for more training steps.

Learning Rate



How to read this chart: The learning rate controls how much the model adjusts its weights during training. This chart shows how the learning rate changes over training steps. Most schedules start with a warmup phase (gradual increase), then decay (gradual decrease) toward the end. The warmup helps stabilize early training, while the decay allows the model to fine-tune and converge. A schedule that decays too quickly may prevent the model from learning effectively.