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## GPRO实验

## 参数设定

都是LoRA微调切Rank=8, lora\_alpha=32

• Without unsloth

```
trainer = GRPOTrainer(model=model,
            args=GRPOConfig(
                    output_dir="results/test_grpo",
                    learning_rate=1e-4,
                    num_train_epochs=5,
                    num_generations=4,
                                         # 越大越费时间
                    per device train batch size=2,
                    gradient accumulation steps=4,
                    max_grad_norm=1,
                    max prompt length=1024,
                    max_completion_length=512,
                    logging_dir="results/test_grpo/log",
                    logging strategy=IntervalStrategy.STEPS,
                    logging steps=50,
                    save_strategy=SaveStrategy.STEPS,
                    save_steps=2000,
                    lr scheduler type="cosine",
                    fp16=True,
                    do_train=True,
                ),
            reward_funcs=reward_func,
            train_dataset=dataset_processed,
            processing_class= tokenizer,
            reward_processing_classes=tokenizer,
```

• With unsloth

```
trainer = GRPOTrainer(model=model,
            args=GRPOConfig(
                    output_dir="results/test_grpo_unsloth",
                    learning rate=1e-4,
                    num train epochs=5,
                                         # 越大越费时间
                    num generations=4,
                    per device train batch size=2,
                    gradient accumulation steps=4,
                    max grad norm=1,
                    max prompt length=1024,
                    max_completion_length=512,
                    logging dir="results/test grpo unsloth/log",
                    logging_strategy=IntervalStrategy.STEPS,
                    logging steps=50,
                    save strategy=SaveStrategy.STEPS,
                    save_steps=2000,
                    lr_scheduler_type="cosine",
                    bf16=True,
                    do train=True,
            reward funcs=reward func,
            train dataset=dataset processed,
            processing_class= tokenizer,
            reward processing classes=tokenizer,
```

#### 资源占用

Without unsloth



# 时间花费

Without unsloth

[ 10/6950 02:19 < 33:35:31, 0.06 it/s, Epoch 0.01/5]

With unsloth

# 数据集

SG-KBQA项目中的WebQSP-GenDataset