Analytics Vidhya

Training

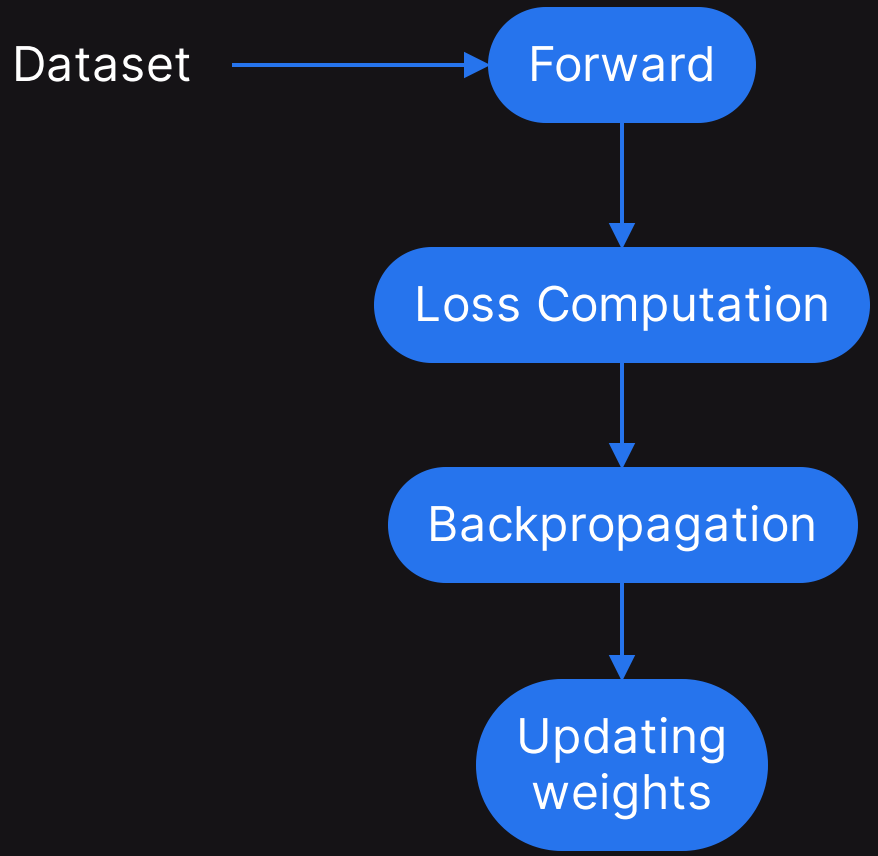
Instructor

Sourab Mangrulkar

Machine Learning Engineer at

Creator of PEFT

Training Loop



Things to consider

1. Hyperparameters
2. Saving checkpoints at regular intervals
3. Evaluation on an evaluation dataset
4. Compute requirements and hardware
5. Tracking experiments

PyTorch training loop code

```
for step, (inputs, labels) in enumerate(train_dataloader):
  # forward
  predictions = model(inputs)
  # loss computation
  loss = loss_function(predictions, labels)
  # Backpropagation
  loss.backward()
  # updating weights and resetting gradients
  optimizer.step()
  optimizer.zero_grad()
```

Training and Inference at Scale

Transformers Trainer API and Accelerate make it easier

Trainer API

Just plug in the model and datasets and call `trainer.train()`. No need to write the boilerplate PyTorch loops.

Accelerate

Training and inference at scale made simple, efficient and adaptable.