

Model 2 results:

```
Starting training...

Step 50 | Epoch 0.46 | Loss: 0.6943
Step 100 | Epoch 0.93 | Loss: 0.6912
Step 150 | Epoch 1.39 | Loss: 0.6153
Step 200 | Epoch 1.85 | Loss: 0.5460
Step 250 | Epoch 2.31 | Loss: 0.4369
Step 300 | Epoch 2.78 | Loss: 0.4630
Step 350 | Epoch 3.24 | Loss: 0.3591
Step 400 | Epoch 3.70 | Loss: 0.3213
Step 450 | Epoch 4.17 | Loss: 0.3312
Step 500 | Epoch 4.63 | Loss: 0.2425

Epoch-wise Training Summary:
Epoch 0 | Avg Loss: 0.6943
Epoch 1 | Avg Loss: 0.6532
Epoch 2 | Avg Loss: 0.4915
Epoch 3 | Avg Loss: 0.4111
Epoch 4 | Avg Loss: 0.3262
Epoch 5 | Avg Loss: 0.2425
```

Evaluating on training data...

```
{'eval_accuracy': 0.9317129629629629, 'eval_precision': 0.9481481481481482,
'eval_recall': 0.909952606635071, 'eval_f1': 0.9286577992744861, 'eval_loss':
0.1980215460062027, 'eval_runtime': 6.276, 'eval_samples_per_second': 137.668,
'eval_steps_per_second': 34.417, 'epoch': 5.0}
```

Evaluating on validation data...

```
{'eval_accuracy': 0.8333333333333334, 'eval_precision': 0.9038461538461539,
'eval_recall': 0.8103448275862069, 'eval_f1': 0.8545454545454546, 'eval_loss':
0.47993218898773193, 'eval_runtime': 0.701, 'eval_samples_per_second': 136.949,
'eval_steps_per_second': 34.237, 'epoch': 5.0}
```

Final Validation Summary:

**Accuracy: 0.8333**

F1 Score: 0.8545

Precision: 0.9038

Recall: 0.8103