Cervical Cancer Results

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1 Introduction

In this project, we trained a model for cervical cancer classification using a dataset of images. The model was evaluated using several metrics, including accuracy, precision, recall, F1-score, and confusion matrix. In the following, we present the results of the training process, evaluation metrics, and confusion matrix.

2 Training Curves

Figure 1 shows the training accuracy and training loss curves for the model. Accuracy increases steadily during training, while loss decreases as expected.

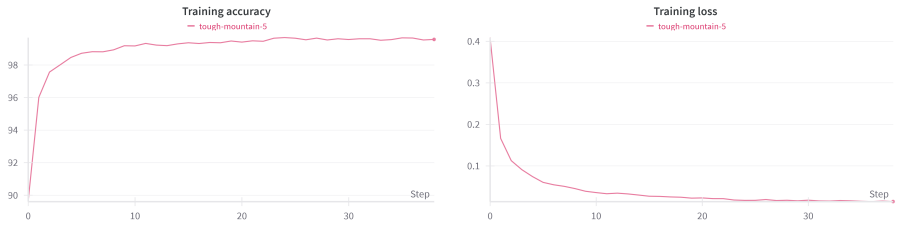

Figure 1: Training accuracy and loss curves.

3 Validation Curves

Figure 2 shows the accuracy and loss curves of the validation. These curves are crucial for understanding how well the model generalizes to new data during the training process.

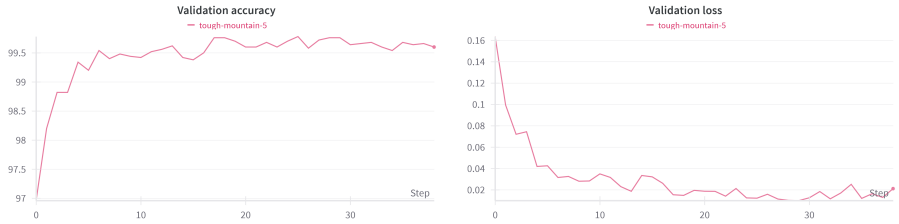

Figure 2: Validation accuracy and loss curves.

4 Classification Report

The classification report provides the precision, recall, and F1-score for each class. Figure 3 shows the scores for each class in the cervical cancer dataset.

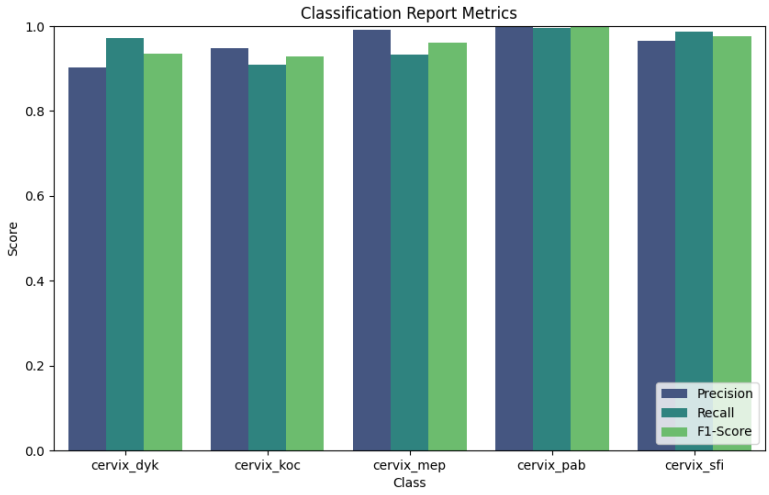

Figure 3: Classification report metrics.

5 Confusion Matrix

Figure 4 presents the confusion matrix for the model, showing how the predicted labels correspond to the true labels for each class.

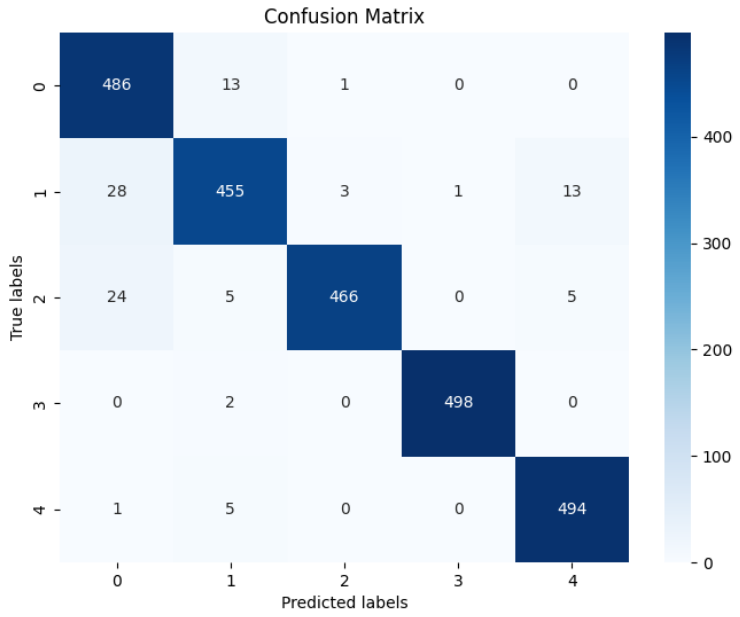

Figure 4: Confusion matrix of the model.

6 Conclusion

In this project, we successfully trained and evaluated a model for the classification of cervical cancer. The performance of the model was assessed using several metrics, including accuracy, precision, recall, F1 score, and confusion matrix. The results indicate that the model performs well in classifying the images, with high accuracy and strong precision and recall scores.

However, there are still areas for improvement. Future work could involve fine-tuning the model using additional data, trying different architectures, or applying data augmentation techniques to improve the model's generalization. Further evaluation of more diverse data sets would also help assess its robustness in real-world scenarios.