ABSTRACT

Gender from a person can be seen visually based on the face image. In addition, with current technological advances, computers can also perform gender classification based on trained data. The process of gender classification using computers can be applied to various sectors such as industry or government. In previous studies, there were various conventional methods used to classify images, specifically gender classification based on facial images, but most of them did not carry out Cross-Dataset Evaluation to test the performance of the resulting model. This final project will discuss how to perform gender classification based on facial image using the Vision Transformer method using the AFAD dataset as a training dataset and conducting a Cross-Dataset Evaluation of the resulting model using the UTKFace dataset. The model that was built managed to get a validation accuracy of 0.9676 and a testing accuracy of 0.9661 on the training test or Same-Dataset and get an accuracy of 0.8174, Precision 0.8188, Recall 0.8189, and F1 Score of 0.8189 on Cross-Dataset Evaluation testing.

Keywords: Transformer, Vision Transformer, Gender Classification, Image Processing.