

Abstract

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MACHINE LEARNING MODEL FOR RECOGNITION OF JAVANESE CHARACTERS USING CONVOLUTIONAL NEURAL NETWORK METHOD

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Keyword : Convolutional Neural Network, CRISP-DM, Javanese Script, Machine Learning

(xiv + 50 + Appendix)

Indonesia as the largest archipelagic country with abundant cultural wealth has Javanese script as one of its cultural heritage. Javanese script or Hanacaraka, is not only used to write Javanese but also other languages such as Sanskrit. Seeing the importance of preserving and recognizing this script, this research aims to develop a machine learning model that is able to recognize Javanese script automatically, with the hope of helping people learn and use this script. The model developed is based on a deep learning approach, using a dataset taken from Kaggle and carrying out several augmentations to overcome the overfitting problem. The results of model training show an accuracy of 88%, but there are indications of overfitting in the validation data. Nevertheless, this model is able to make a significant contribution in the digital recognition of Javanese characters, although there is room for further improvement, especially in overcoming the problem of overfitting and increasing the generalization ability of the model.

Bibliography (2016-2024)