Outline:

BAB III METODE PENELITIAN

**3.1 DATA**

**3.2 ALAT DAN BAHAN**

**ALAT**

SPESIFIKASI PERANGKAT KERAS

*LIBRARIES*

**BAHAN**

PENGUMPULAN DATA

PREPROCESSING

ARSITEKTUR MODEL XCEPTION DKK

TRAIN MODEL

EVALUASI

- Akurasi

- Confusion Matrix

**3.3 SKENARIO PENGUJIAN**

* DARI AWAL SAMPE AKHIR
* COBA AUGMENTASI (BANDINGKAN)
* COBA FINE TUNING DENGAN FREEZE LAYER

**METODE PENELITIAN**

A white square with black text

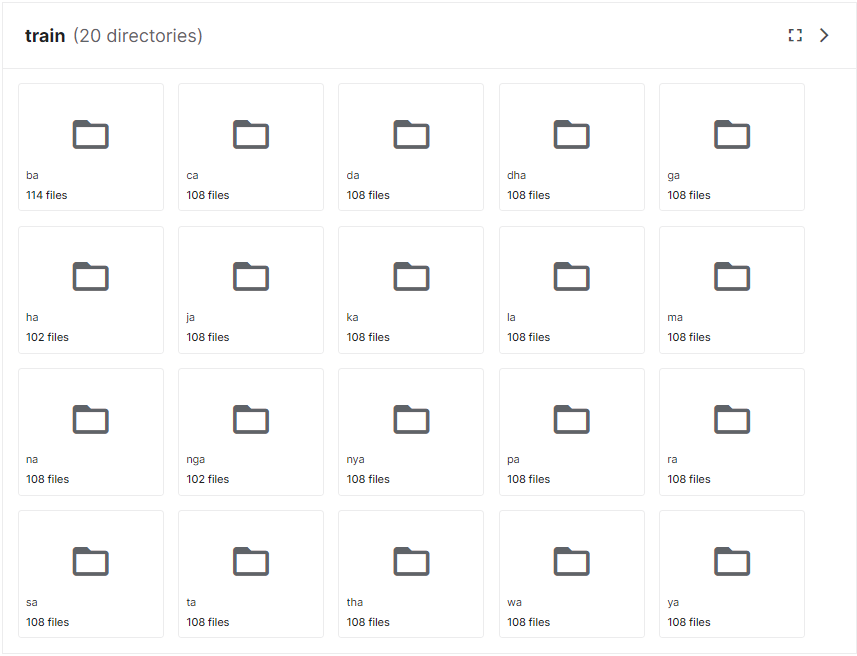
Description automatically generated with medium confidence

**DATA**

Data yang peneliti gunakan diambil dari *kaggle*. *Kaggle* adalah sebuah platform komunitas *data science* yang berisi berbagai sumber dataset, notebook, kompetisi, dan lain sebagainya. Terdapat dua sumber dataset yang saya ambil yaitu,

* [Aksara Jawa | Kaggle](https://www.kaggle.com/datasets/phiard/aksara-jawa) (2659): sebagai sumber utama
* [Aksara Jawa / Hanacaraka | Kaggle](https://www.kaggle.com/datasets/vzrenggamani/hanacaraka?select=ya) (1583): sebagai sumber tambahan
* Buku tulis belajar Aksara Jawa: sebagai sumber tambahan lainnya???

Contoh data:



[INSERT CONTOH DATA DARI CODING] - RANDOM

**ALAT DAN BAHAN**

SPESIFIKASI PERANGKAT KERAS

Perangkat yang digunakan pada penelitian ini diambil dari platform notebook *kaggle*. *Kaggle* menyediakan jupter notebook yang bisa digunakan untuk menjalankan kode dengan menggunakan GPU, CPU, dan RAM yang cukup. Berikut detail spesifikasinya:

20 GB of auto-saved disk space

1 Nvidia Telsa P100 GPU

2 CPU cores

13 Gigabytes of RAM

Lebih lengkapnya dapat dilihat di [dokumentasi *kaggle* notebook](https://www.kaggle.com/docs/notebooks)

LIBRARIES

* Tensorflow
* Albumentation
* Numpy
* Pandas
* Matplotlib
* Plotly
* Sklearn

**PREPROCESSING**

A diagram of a flowchart

Description automatically generated with low confidence

RESCALE/RESIZE

[INSERT CONTOH DARI CODING]

NORMALIZATION

[INSERT CONTOH DARI CODING]

AUGMENTATION

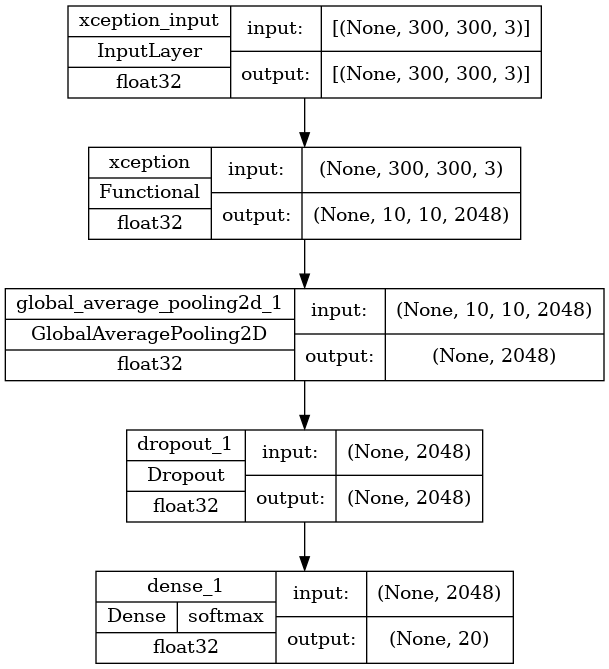
CONFIG

[INSERT CONTOH DARI CODING]

ARSITEKTUR MODEL TRANFSER LEARNING

XCEPTION

Dalam transfer learning, peneliti mengubah input layer dari model Xception dan menambahkan global average pooling, dropout, dan dense setelah arsitektur dari model Xception [35].

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*TRAIN MODEL*

EVALUASI

* Akurasi
* Confusion Matrix
* Test new data

BAB I

13: Implementation of Optical Character Recognition using Tesseract with the Javanese Script Target in Android Application, Urbanization and Regional Imbalances in Indonesia, Rancang Bangun Aplikasi Pembelajaran Aksara Jawa Berbasis Android

14: Implementation of Optical Character Recognition using Tesseract with the Javanese Script Target in Android Application, Urbanization and Regional Imbalances in Indonesia, Rancang Bangun Aplikasi Pembelajaran Aksara Jawa Berbasis Android

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BAB II

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28: [A Comprehensive Survey on Transfer Learning | IEEE Journals & Magazine | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/9134370)

29: [Our results confirm the importance of data augmentation in both training and testing and show that it can lead to more performance gains than obtaining new images. - Consensus](https://consensus.app/details/results-confirm-importance-data-augmentation-training-perez/7309cabc177d5f9a85722a741270e505/)

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BAB III

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# References

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