

Learning

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0.1 # Analiza danych podczas uczenia

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0.2 1. Pobranie bibliotek

W tym miejscu pobieramy potrzebne biblioteki do analizy

```
[1]: import pandas as pd
import matplotlib.pyplot as plt
import pathlib
```

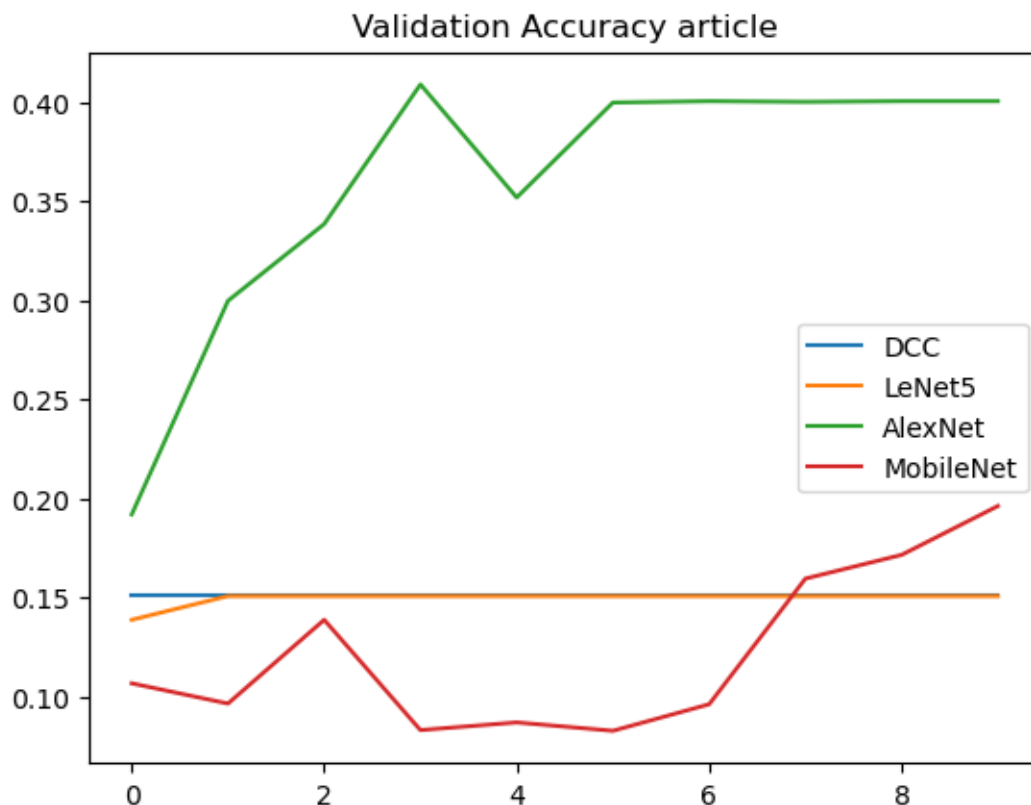
1 2. Pobranie danych

Podczas uczenia były zapisywane dane do plików CSV. Teraz te wszystkie pliki zostają wczytane na potrzeby analizy

```
[3]: DDN_full = pd.read_csv('./ResultLearning/DDN_full.csv')
LeNet5_full = pd.read_csv('./ResultLearning/LeNet5_full.csv')
AlexNet_full = pd.read_csv('./ResultLearning/AlexNet_full.csv')
MobileNet = pd.read_csv('./ResultLearning/MobileNet.csv')
MobileNet_full = pd.read_csv('./ResultLearning/MobileNet_full.csv')
Inception = pd.read_csv('./ResultLearning/Inception.csv')
Inception_full = pd.read_csv('./ResultLearning/Inception_full.csv')
Xception = pd.read_csv('./ResultLearning/Xception.csv')
Xception_full = pd.read_csv('./ResultLearning/Xception_full.csv')
VGG16 = pd.read_csv('./ResultLearning/VGG16.csv')
VGG16_full = pd.read_csv('./ResultLearning/VGG16_full.csv')
ResNet50 = pd.read_csv('./ResultLearning/ResNet50.csv')
ResNet50_full = pd.read_csv('./ResultLearning/ResNet50_full.csv')
InceptionResNet = pd.read_csv('./ResultLearning/InceptionResNet.csv')
InceptionResNet_full = pd.read_csv('./ResultLearning/InceptionResNet_full.csv')
```

2 3. Architektury z pierwszego artykułu.

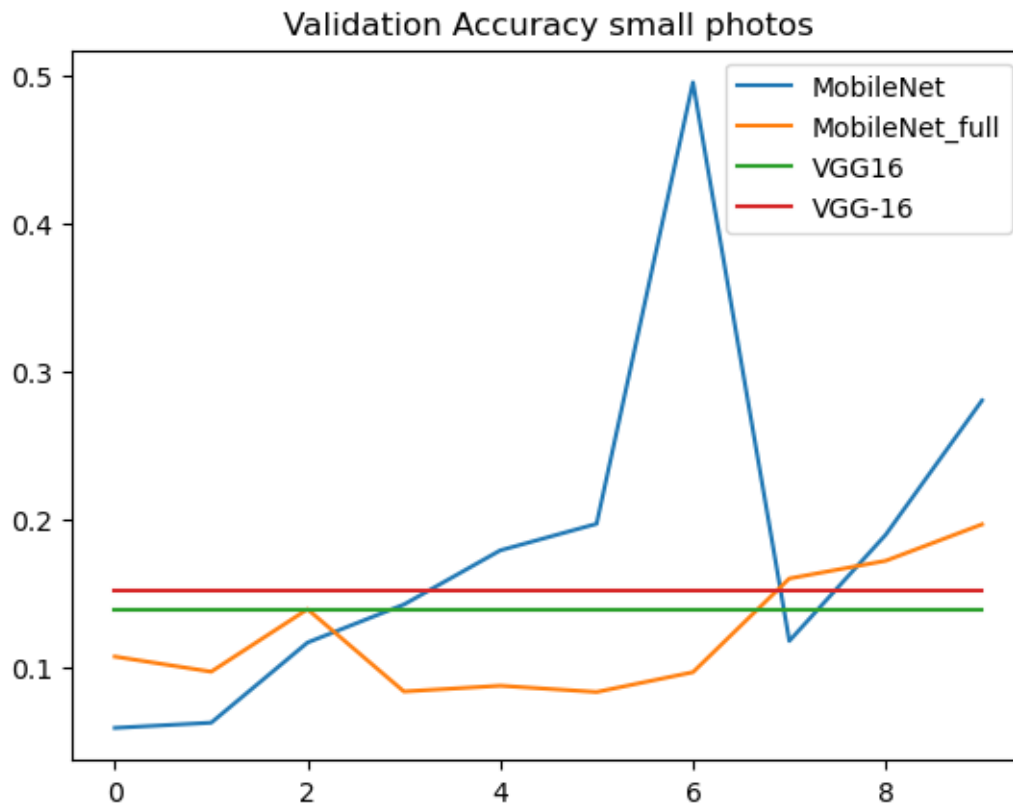
```
[4]: plt.title('Validation Accuracy article')
plt.plot(DDN_full['val_accuracy'],label='DCC')
plt.plot(LeNet5_full['val_accuracy'],label='LeNet5')
plt.plot(AlexNet_full['val_accuracy'],label='AlexNet')
plt.plot(MobileNet_full['val_accuracy'], label='MobileNet')
plt.legend()
plt.savefig('./PictureLearning/ValidationAccuracy_article.jpeg', dpi = 900)
plt.show()
```



3 4. Walidacja accuracy dla modeli, które wyszły bardzo słabo

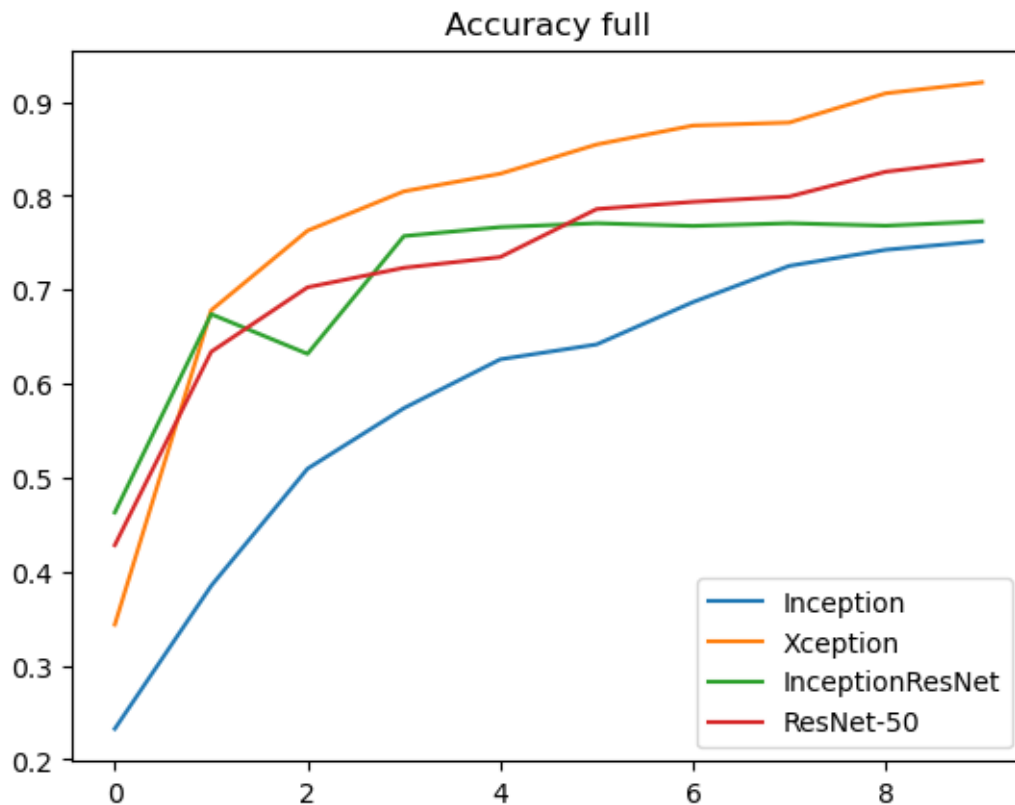
```
[5]: plt.title('Validation Accuracy small photos')
plt.plot(MobileNet['val_accuracy'],label='MobileNet')
plt.plot(MobileNet_full['val_accuracy'],label='MobileNet_full')
plt.plot(VGG16['val_accuracy'], label='VGG16')
plt.plot(VGG16_full['val_accuracy'], label='VGG-16')
plt.legend()
plt.savefig('./PictureLearning/ValidationAccuracy_SmallPhotos.jpeg', dpi = 900)
```

```
plt.show()
```



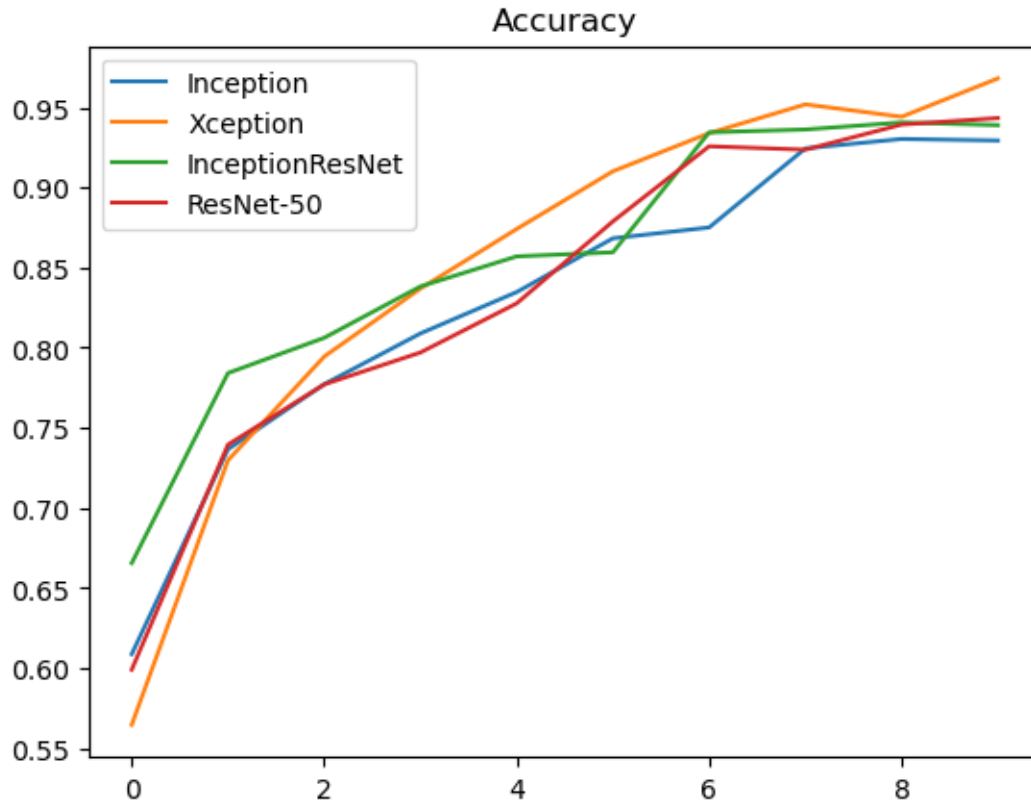
4 4. Architektury uczone od początku

```
[6]: plt.title('Accuracy full')
plt.plot(Inception_full['accuracy'], label='Inception')
plt.plot(Xception_full['accuracy'], label='Xception')
plt.plot(InceptionResNet_full['accuracy'], label='InceptionResNet')
plt.plot(ResNet50_full['accuracy'], label='ResNet-50')
plt.legend()
plt.savefig('./PictureLearning/Accuracy_full.jpeg', dpi = 900)
plt.show()
```



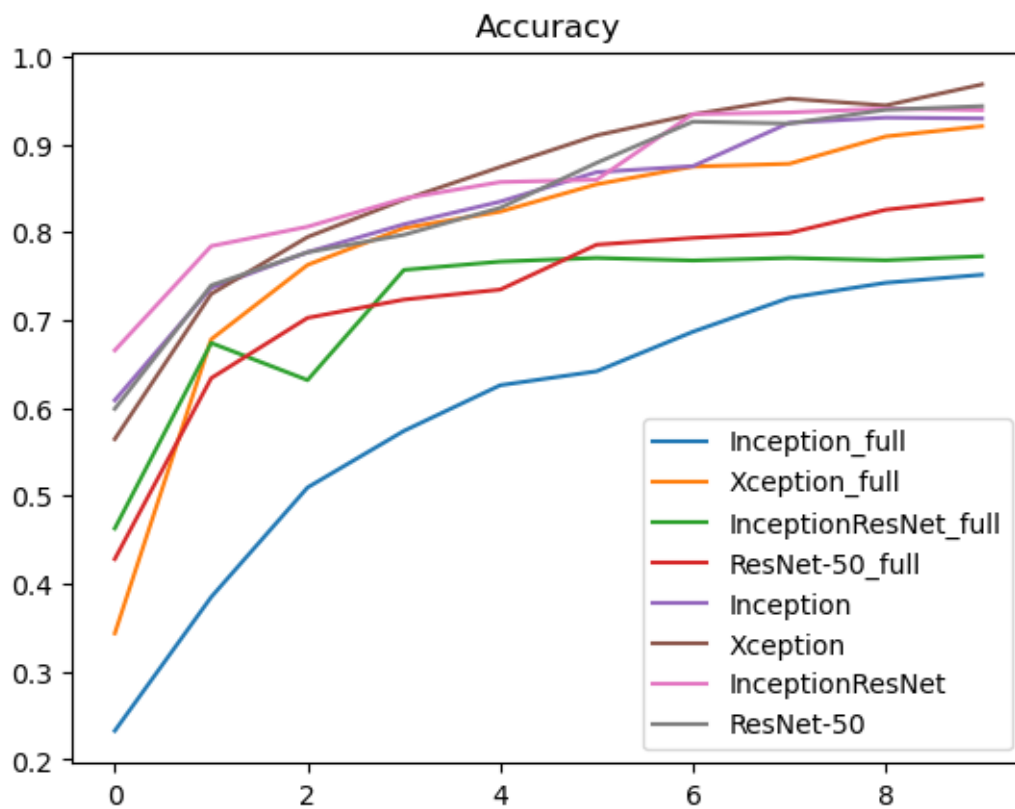
5 5. Architektury uczone na połowie warstw

```
[7]: plt.title('Accuracy')
plt.plot(Inception['accuracy'], label='Inception')
plt.plot(Xception['accuracy'], label='Xception')
plt.plot(InceptionResNet['accuracy'], label='InceptionResNet')
plt.plot(ResNet50['accuracy'], label='ResNet-50')
plt.legend()
plt.savefig('./PictureLearning/Accuracy.jpeg', dpi = 900)
plt.show()
```



6 6. Architektury uczone na wszystkich warstwach oraz na połowie warstw.

```
[8]: plt.title('Accuracy')
plt.plot(Inception_full['accuracy'], label='Inception_full')
plt.plot(Xception_full['accuracy'], label='Xception_full')
plt.plot(InceptionResNet_full['accuracy'], label='InceptionResNet_full')
plt.plot(RestNet50_full['accuracy'], label='ResNet-50_full')
plt.plot(Inception['accuracy'], label='Inception')
plt.plot(Xception['accuracy'], label='Xception')
plt.plot(InceptionResNet['accuracy'], label='InceptionResNet')
plt.plot(RestNet50['accuracy'], label='ResNet-50')
plt.legend()
plt.savefig('./PictureLearning/AccuracyResult.jpeg', dpi = 900)
plt.show()
```



[]: