BIAI

Classification of furry animals

Analysis of the task

True : Cat Pred : Cat



True: Dog Pred: Dog



True: Sheep



True : Cat Pred: Cat



True: Squirrel Pred: Squirrel



True : Cat Pred: Dog



True : Cat Pred : Cat



True : Cat Pred: Cat



True: Dog Pred: Dog



True : Cat Pred: Cat



True: Sheep Pred: Sheep



True: Dog Pred: Dog



True : Cat Pred : Cat



True: Dog Pred: Dog





True: Dog Pred: Dog



True: Squirrel Pred: Squirrel



True: Sheep Pred: Sheep



True : Cat



True: Rabbit

True: Rabbit Pred: Rabbit



True: Squirrel Pred: Squirrel



True: Cat Pred: Cat



True : Cat Pred : Cat



True : Cat Pred: Cat



True: Dog Pred: Dog



True: Dog Pred: Dog



True: Sheep Pred : Sheep



True: Dog Pred : Dog



True : Dog Pred : Cat



True: Sheep



Dataset

Training set:

• Cat: 1845

• Dog: 1655

• Rabbit: 967

• Sheep: 1740

• Squirrel: 1782

Testing set:

• Cat: 100

• Dog: 100

• Rabbit: 40

• Sheep: 80

• Squirrel: 80

7989 images

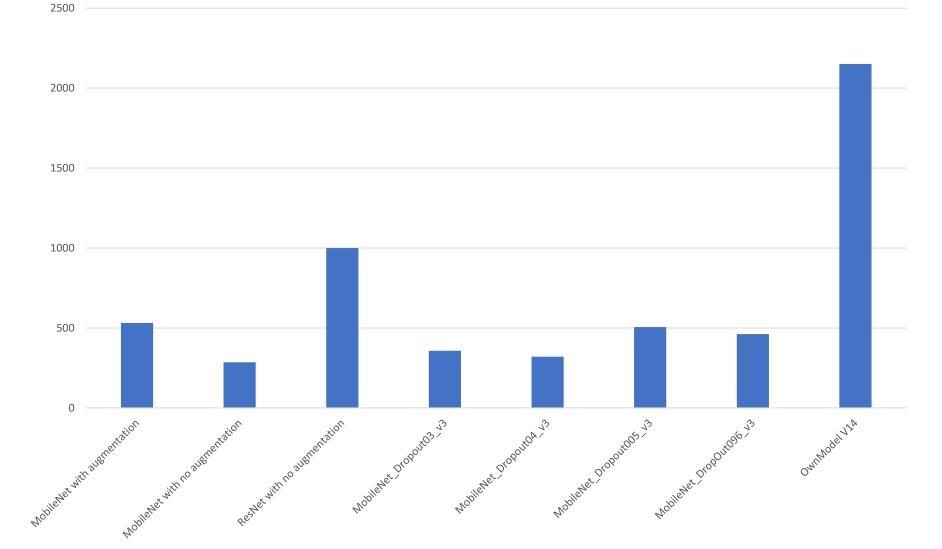
400 images

Learning of pretrained models

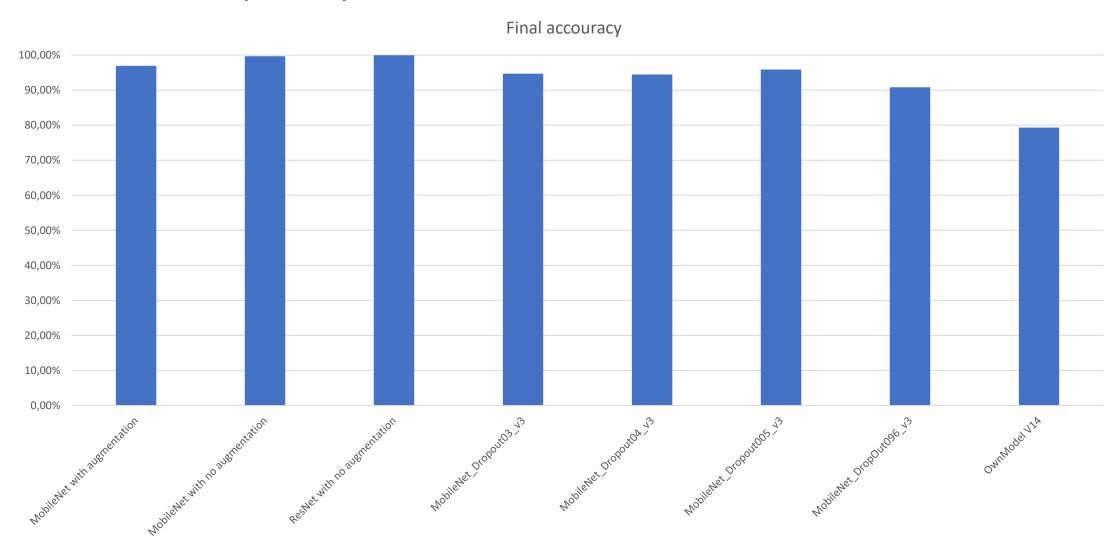
Learning time[min]

MobileNet

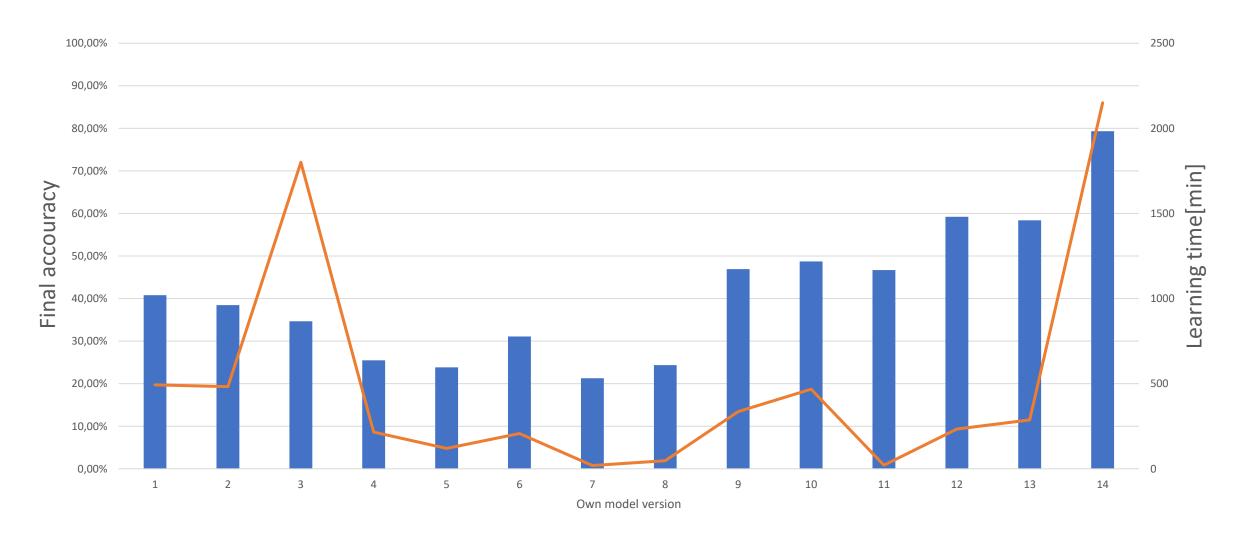
ResNet



Accouracy of pretrained models

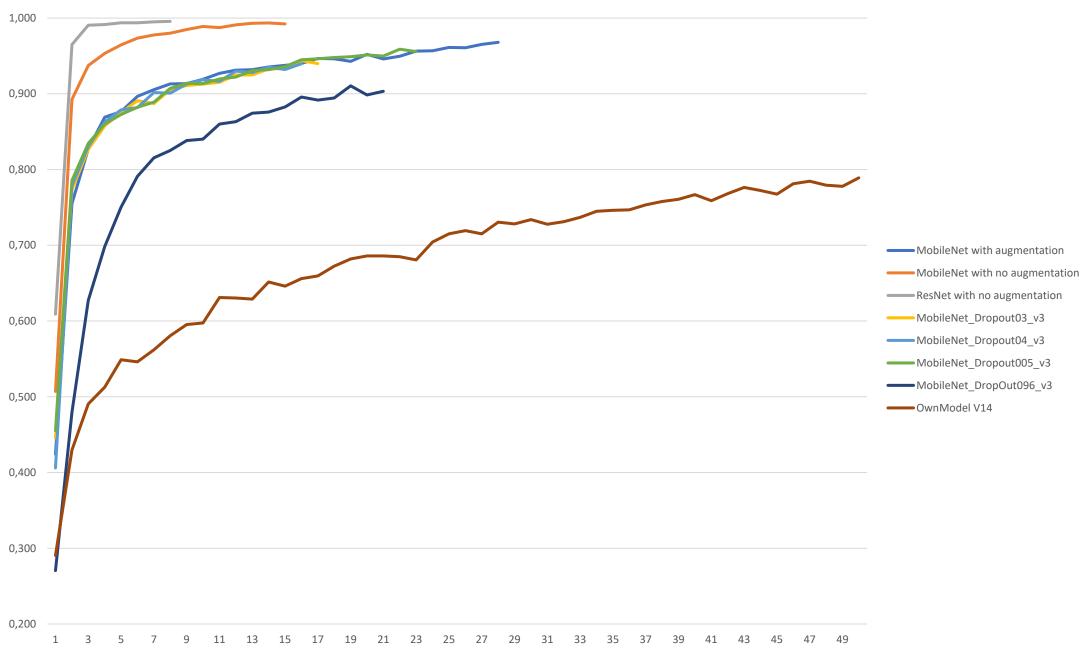


Own model versions

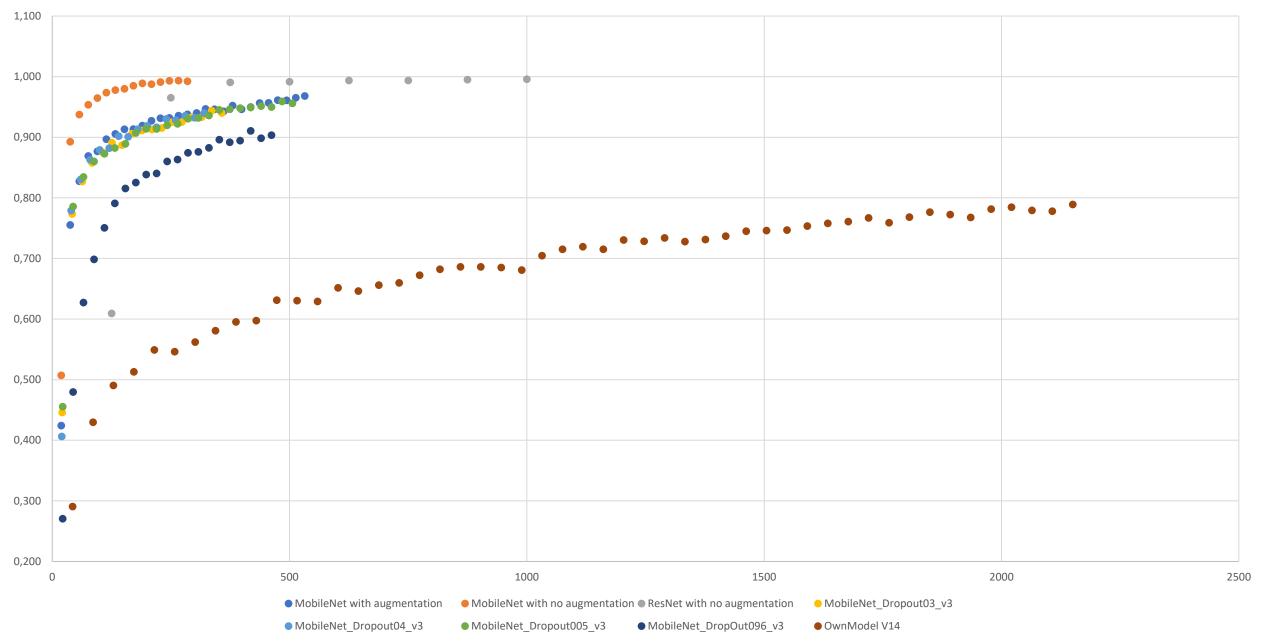


V1 1,633,226 params

Accouracy/Epoch







Carbon footprint

 Total learning time: 10348 minutes => 172 hours

• PC power: 180 W

• Electricity used: 31 kWh

 Energy equivalent of a ton of coal: ~440 kWh

We used around 14 kg of coal



Thank you for your time

Bartłomiej Piątek Jakub Hoś

