



Universität Augsburg
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Informatik

Deep Learning Challenge

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Agenda

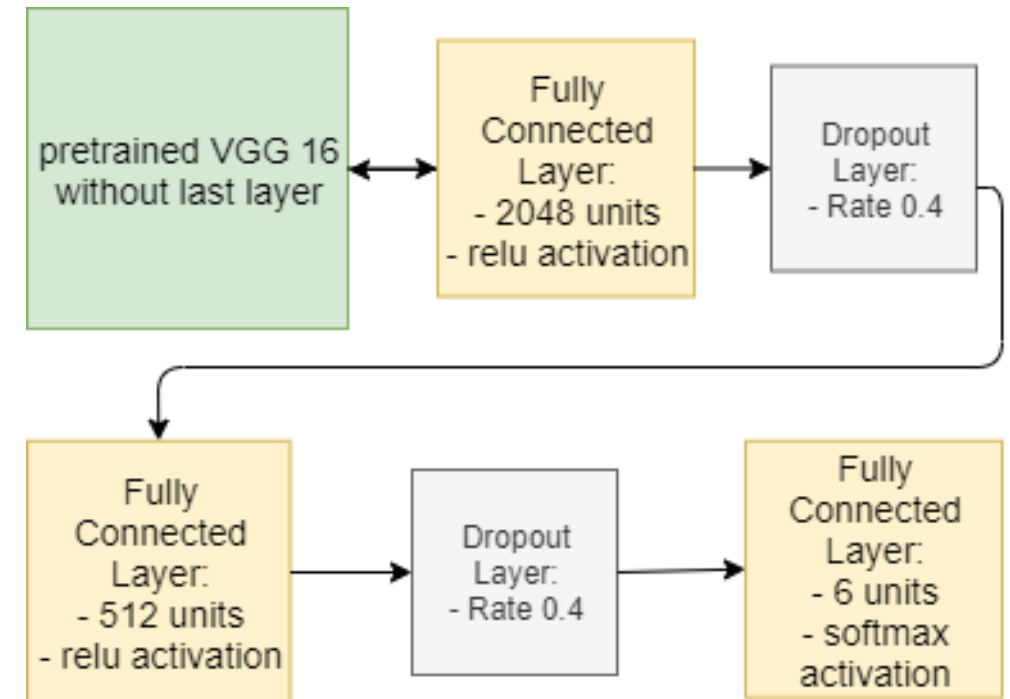
- 1 Methodology
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Methodology

- Transfer Learning: from pretrained VGG16-Model
- Image Augmentation: Random crops, blurring, left-right-flips
- Regularization: Dropouts

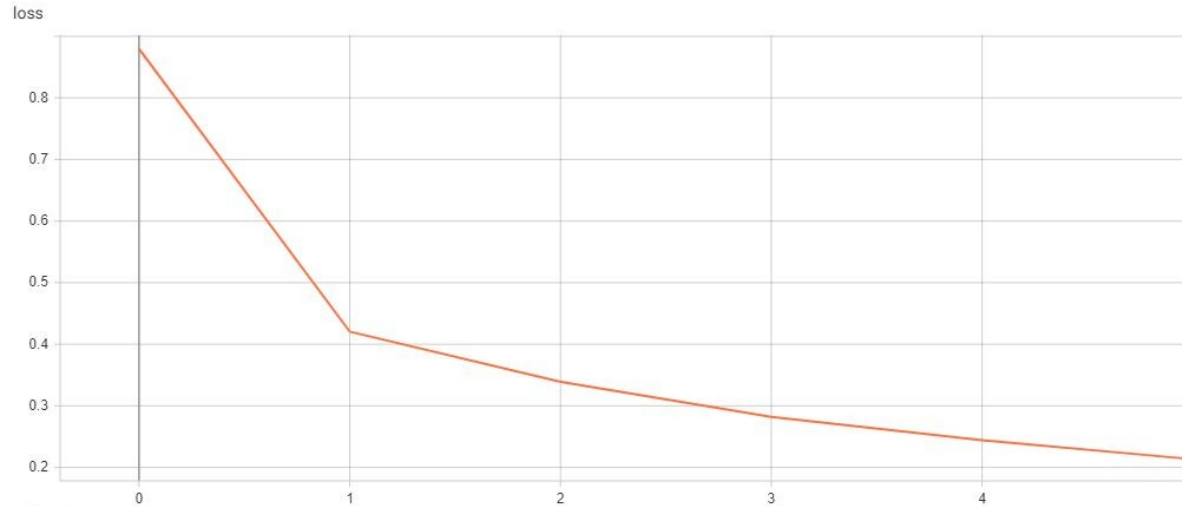
Methodology

- Optimizer: Adam (learning rate: $1e-5$)
- Batch_size: 32
- Unfrozen VGG16 net
- 6 epochs

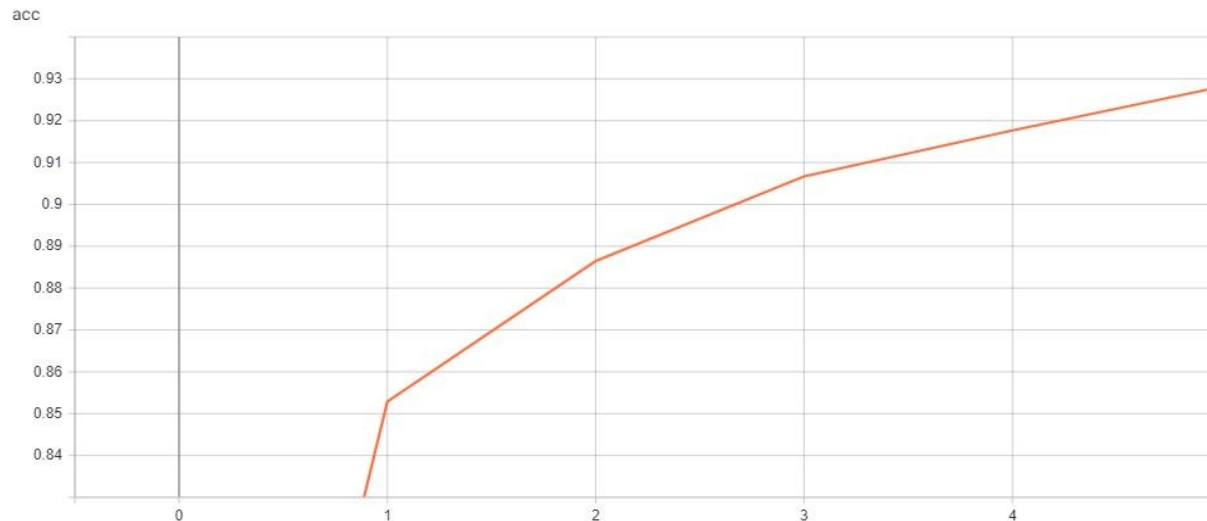


Results

loss



accuracy

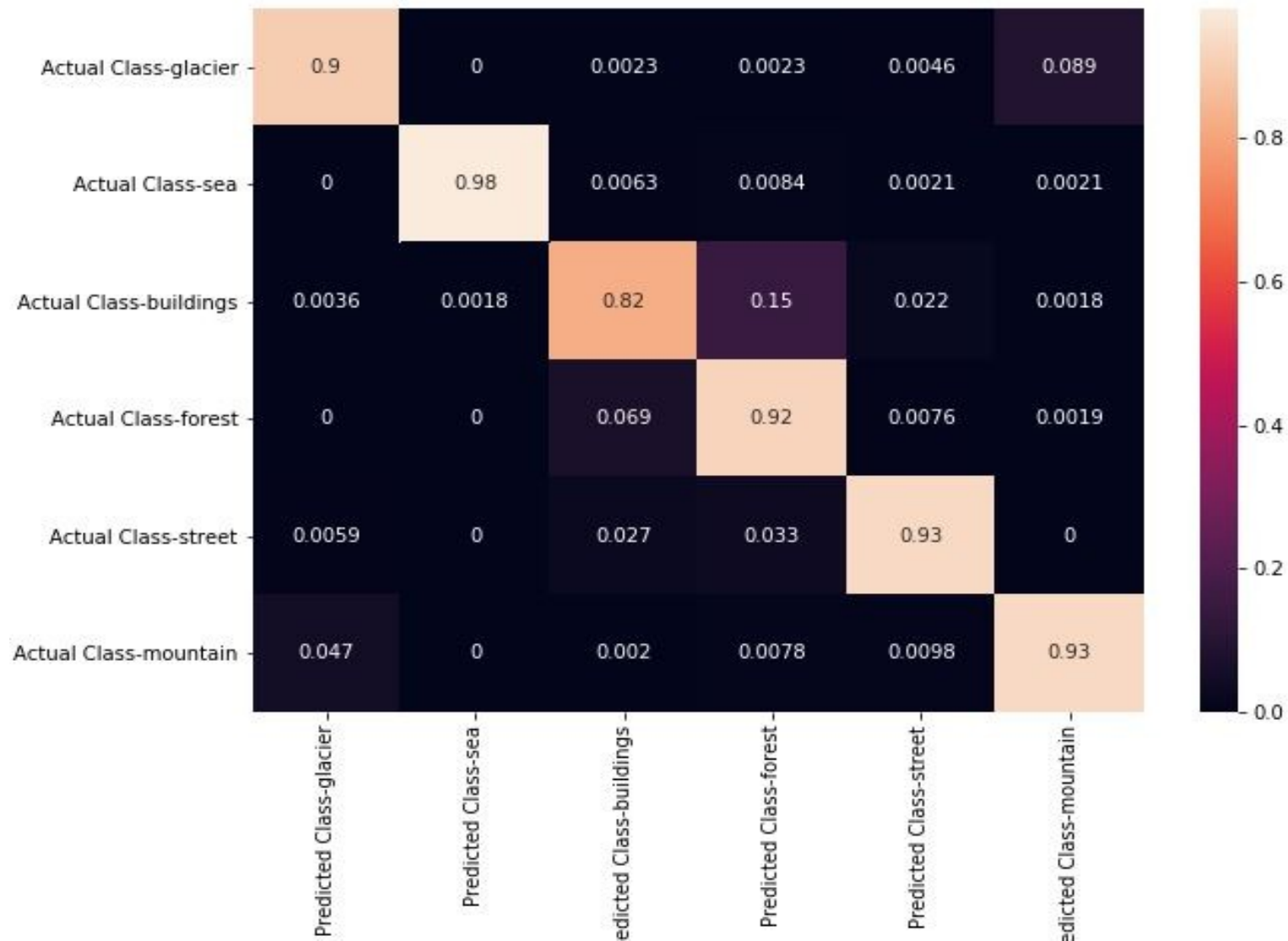


Accuracy on train set: 0.928

Accuracy on validation set: 0.923

Accuracy on test set: 0.914

Results



Possible challenges & further steps

Forest and building labels get mixed-up:

- improve accuracy for these labels
- increase augmentation for these classes

Keras build-in generator pipeline not suitable for running on google colab, because to many I/O-Operations