



Deep Learning for Visual Computing

Assignment 3 Recap

Christopher Pramerdorfer
Computer Vision Lab, TU Wien

Best Teams

Team	Rank	Accuracy [%]
47	1	93.80
6	2	93.40
48	3	93.07

Approach – Team 47

Data augmentation

- ▶ Horizontal mirroring
- ▶ Random cropping to 24×24 pixels

Learning rate decay at fixed intervals during training

Ten-crop oversampling during testing

Approach – Team 47

VGG-like frontend

- ▶ Five conv-conv-pool blocks
- ▶ Blocks produce 32, 64, ... feature maps

ResNet-like backend

Batch normalization and weight decay for regularization

Approach – Team 6

Data augmentation

- ▶ Horizontal mirroring
- ▶ Random cropping to 28×28 pixels

Learning rate decay at fixed intervals during training

Oversampling using random transformations during testing

Model ensemble (two models)

Approach – Team 6

VGG-like frontend

- ▶ Three conv-conv-pool blocks
- ▶ Blocks produce 64, 128, 256 feature maps

MLP backend with 512 hidden units

Batch normalization, weight decay, dropout