CNN学习研讨小组第一周任务——CNN代表性人物、实验室、项目、论文和代码

1 Famous researchers

<http://www.cnblogs.com/52machinelearning/p/5821591.html>

Yann Lecun

<http://yann.lecun.com/>

Director of AI Research at Facebook & Silver Professor at the Courant Institute, New York University. Research direction: AI, machine learning, computer vision, robotics, image compression.

First model of Convolutional Neural Networks (University of Toronto) (LeCun 88, 89)

LeNet5

Geoffrey Hinton

<http://www.cs.toronto.edu/~hinton/>

Emeritus Professor of Computer Science, University of Toronto & Engineering Fellow, Google Inc.

Research direction: machine learning, neural networks, artificial intelligence, cognitive science, computer science

Alex Krizhevsky

<http://www.cs.toronto.edu/~kriz/>

Currently working at Google in Mountain View, California. Student of Hinton, proposed AlexNet.

Andrew Zisserman and Karen Simonyan

<http://www.robots.ox.ac.uk/~az/>

<http://www.robots.ox.ac.uk/~karen/>

Karen Simonyan is student of Andrew Zisserman. They proposed VGG.

Christian Szegedy

<http://dblp.uni-trier.de/pers/hd/s/Szegedy:Christian>

Proposed GoogLeNet.

Kaiming He

<http://kaiminghe.com/>

Research Scientist, Facebook AI Research (FAIR)

Computer Vision, Machine Learning, Deep Learning

Proposed ResNet, Faster R-CNN.

Ross Girshick, Jeff Donahue and Trevor Darrell

<https://people.eecs.berkeley.edu/~trevor/>

<http://www.rossgirshick.info/>

<http://jeffdonahue.com/>

Proposed R-CNN.

Andrea Vedaldi

<http://www.robots.ox.ac.uk/~vedaldi/>

University of Oxford

Computer Vision, Image Understanding, Machine Learning

Proposed MatConvNet: CNNs for MATLAB.

2 Lab

Computational and Biological Learning Lab. Charged by Yann Lecun

Visual Geometry Group. Charged by Andrew Zisserman

Facebook AI Research (FAIR)

Microsoft Research Asia (MSRA)

百度深度学习研究院

3 Project

4 Papers

[1] LeCun Y, Boser B E, Denker J S, et al. Handwritten digit recognition with a back-propagation network[C]//Advances in neural information processing systems. 1990: 396-404. (LeNet5)

[2] Krizhevsky A, Sutskever I, Hinton G E. Imagenet classification with deep convolutional neural networks[C]//Advances in neural information processing systems. 2012: 1097-1105. (AlexNet)

[3] Simonyan K, Zisserman A. Very deep convolutional networks for large-scale image recognition[J]. arXiv preprint arXiv:1409.1556, 2014. (VGG)

[4] Szegedy C, Liu W, Jia Y, et al. Going deeper with convolutions[C]//Proceedings of the IEEE conference on computer vision and pattern recognition. 2015: 1-9. (GoogLeNet)

[5] He K, Zhang X, Ren S, et al. Deep residual learning for image recognition[C]//Proceedings of the IEEE conference on computer vision and pattern recognition. 2016: 770-778. (ResNet)

[6] Girshick R, Donahue J, Darrell T, et al. Rich feature hierarchies for accurate object detection and semantic segmentation[C]//Proceedings of the IEEE conference on computer vision and pattern recognition. 2014: 580-587. (R-CNN)

[7] Ren S, He K, Girshick R, et al. Faster R-CNN: Towards real-time object detection with region proposal networks[C]//Advances in neural information processing systems. 2015: 91-99. (Faster R-CNN)

[8] Vedaldi A, Lenc K. Matconvnet: Convolutional neural networks for matlab[C]//Proceedings of the 23rd ACM international conference on Multimedia. ACM, 2015: 689-692.

5 Code

Matconvnet

<http://www.vlfeat.org/matconvnet/#matconvnet-cnns-for-matlab>

UFLDL教程

<http://ufldl.stanford.edu/wiki/index.php/UFLDL%E6%95%99%E7%A8%8B>

DeepLearnToolbox

<https://github.com/rasmusbergpalm/DeepLearnToolbox>

AlexNet

<https://github.com/search?l=Matlab&q=AlexNet&type=Repositories&utf8=%E2%9C%93>

VGG

<https://github.com/search?l=Matlab&q=VGG&type=Repositories&utf8=%E2%9C%93>

GoogLeNet

<https://github.com/mtmd/GoogleNet_MATLAB>

ResNet

<https://github.com/KaimingHe/deep-residual-networks>

<https://github.com/search?l=Matlab&q=ResNet&type=Repositories&utf8=%E2%9C%93>