

Chapter 7

Simon Ward-Jones
simonwardjones16@gmail.com

Novemeber 1, 2020

[Link to chapter](#)

1 Modern Convolutional Neural Networks

2 AlexNet - 2012

- AlexNet has a similar structure to that of LeNet, but uses more convolutional layers and a larger parameter space to fit the large-scale ImageNet dataset
- Dropout, ReLU, and preprocessing were the other key steps in achieving excellent performance in computer vision tasks

3 Networks Using Blocks (VGG) - 2014

- VGG-11 constructs a network using reusable convolutional blocks. Different VGG models can be defined by the differences in the number of convolutional layers and output channels in each block.
- The use of blocks leads to very compact representations of the network definition. It allows for efficient design of complex networks.

4 Network in Network (NiN) - 2013

-

References

Zhang, A., Lipton, Z. C., Li, M., & Smola, A. J. (2020). *Dive into deep learning*. (<https://d2l.ai>)