

Deep Learning in Computer Vision

Few Resources

[A Comprehensive Guide to Computer Vision Research in 2024](#)

By Bharat (2024) – A gentle introduction and terminology

[Nevis'22: A Stream of 100 Tasks Sampled from 30 Years of Computer Vision Research](#)

By Bornschein et al. 20 authors (2023)

[ConvNeXt V2: Co-designing and Scaling ConvNets with Masked Autoencoders](#)

By Woo et al. (2023)

[DeiT III: Revenge of the ViT](#)

Touvron, Cord, and Jegou

[Object Detection Survey](#)

By Syed Sahil Abbas Zaidi et al. (2021)

[Deep Learning](#)

By Ian Goodfellow and Yoshua Bengio and Aaron Courville (2016)

[Machine Learning is Fun! Part 3: Deep Learning and Convolutional Neural Networks](#)

By Adam Geitgey (2016)

[Object Detection with Deep Learning](#)

By Pierre Sermanet, Google Research (2014)

[You only look once \(YOLO\)](#)

A state-of-the-art, real-time object detection system.

[Original YOLO paper \(2016\)](#), [YOLOv2 paper](#), [YOLOv4 paper \(2020\)](#)

[VGG Convolutional Neural Networks Practical](#)

Detailed tutorial on learning in CNN.

[Attention Is All You Need](#)

By Vaswani et al. (2017)

[Swin Transformer: Hierarchical Vision Transformer using Shifted Windows](#)

By Ze Liu et al. (2021)

[A Survey on State-of-the-art Deep Learning Applications and Challenges](#)

By Noor1 and Ige (2024)

Low Level Deep Learning Libraries

[TensorFlow](#)

TensorFlow was developed by the Google Brain team

Usually used with Python but also supports JavaScript, C ++, Java and Go, C # and Julia.

[Theano](#)

Python library, integrates with NumPy, uses GPU.

[CNTK](#)

The Microsoft Cognitive Toolkit. Python, C#, or C++ programs, or standalone through BrainScript.

Higher Level Frameworks

[Matlab](#)

Has a deep learning toolbox.

[Pytorch](#)

Python version of Torch.

[Keras](#)

Keras is a high-level neural networks API, written in Python and capable of running on top of TensorFlow, CNTK, or Theano.

[Tensorflow Playground](#)

Experimenting with simple Neural Networks