

參考資料 (References)

第 1 章

- [1] Dylan Yeh、陳建鈞,《市值首度超越 Intel ! NVIDIA 贏在哪裡?》, 2020
(<https://www.bnext.com.tw/article/58410/nvidia-valuation-soars-past-intel-on-graphics-chip-boom>)
- [2] Google Cloud 官網指南
(<https://cloud.google.com/ai-platform/docs/ml-solutions-overview>)
- [3] TensorFlow 官網說明
(<https://www.tensorflow.org/install/gpu?hl=zh-tw>)
- [4] NVIDIA 官網說明
(<https://developer.nvidia.com/cuda-toolkit-archive>)
- [5] 陳昭明,《Day 01: 輕鬆掌握 Keras》, 2020
(<https://ithelp.ithome.com.tw/articles/10233272>)
- [6] Colaboratory 官網說明
(<https://colab.research.google.com/notebooks/intro.ipynb>)
- [7] Mike Driscoll, Jupyter Notebook: An Introduction
(<https://realpython.com/jupyter-notebook-introduction/>)

第 2 章

- [1] Keith McNulty,《Decision makers need more math》, 2018
(<https://towardsdatascience.com/decision-makers-need-more-math-ed4d4fe3dc09>)
- [2] Seaborn 官網
(<https://seaborn.pydata.org/examples/index.html>)
- [3] 台灣彩券官網
(<https://www.taiwanlottery.com.tw/DailyCash/index.asp>)
- [4] Univariate Distribution Relationships
(<http://www.math.wm.edu/~leemis/chart/UDR/UDR.html>)
- [5] 維基百科中關於假設檢定的定義
(<https://zh.wikipedia.org/wiki/%E5%81%87%E8%AA%AA%E6%AA%A2%E5%AE%9A>)

[6] 陳昭明,《Day 14: 客服人力規劃(Workforce Planning) -- 線性規劃求解》, 2019
(<https://ithelp.ithome.com.tw/articles/10222877>)

第 3 章

[1] 維基百科中針對常見的深度學習套件之比較圖表
(https://en.wikipedia.org/wiki/Comparison_of_deep-learning_software)

[2] Amol Mavuduru ,《Which deep learning framework is the best?》, 2020
(<https://towardsdatascience.com/which-deep-learning-framework-is-the-best-eb51431c39a>)

[3] TensorFlow 官方 GitHub
(<https://github.com/tensorflow/docs/blob/master/site/en/r1/guide/extend/architecture.md>)

[4] Sonu Sharma ,《Explained: Deep Learning in Tensorflow》, 2019
(<https://towardsdatascience.com/explained-deep-learning-in-tensorflow-chapter-1-9ab389fe90a1>)

[5] TensorFlow 官網移轉指南
(<https://www.tensorflow.org/guide/migrate>)

[6] TensorFlow 官網升級指南
(<https://www.tensorflow.org/guide/upgrade>)

第 4 章

[1] 維基百科 Activation Function 的介紹
(https://en.wikipedia.org/wiki/Activation_function)

[2] TensorFlow 優化器的介紹
(https://www.tensorflow.org/api_docs/python/tf/keras/optimizers)

[3] Keras 優化器的介紹
(<https://keras.io/api/optimizers/>)

[¹] TensorFlow 損失函數的介紹
(https://www.tensorflow.org/api_docs/python/tf/keras/optimizers)

[5] Keras 損失函數的介紹
(<https://keras.io/api/losses/>)

[6] TensorFlow 官網中效能衡量指標的介紹
(https://www.tensorflow.org/api_docs/python/tf/keras/metrics)

- [7] TensorFlow 官網
(<https://www.tensorflow.org>)
- [8] Keras 官網
(<https://keras.io>)
- [9] TensorFlow 官網中 FashionMnist 的介紹
(https://www.tensorflow.org/datasets/catalog/fashion_mnist)
- [10] Keras 官網中神經層的介紹
(<https://keras.io/api/layers/>)
- [11] Keras 官網 Activation Function 說明
(<https://keras.io/api/layers/activations/>)
- [12] Keras 官網 Activation Layers 說明
(https://keras.io/api/layers/activation_layers/)
- [13] 維基百科關於鉸鏈損失函數的介紹
(https://zh.wikipedia.org/wiki/Hinge_loss)
- [14] 《Understanding Nesterov Momentum (NAG)》, 2018
(<https://dominikschmidt.xyz/nesterov-momentum/>)
- [15] Diederik P. Kingma、Jimmy Ba,《Adam: A Method for Stochastic Optimization》, 2014
(<https://arxiv.org/abs/1412.6980>)
- [16] 深度學習於 NLP,《一文告訴你 Adam、AdamW、Amsgrad 區別和聯繫》, 2019
(<https://zhuanlan.zhihu.com/p/39543160>)
- [17] Keras 官網中效能衡量指標的介紹
(<https://keras.io/api/metrics/>)
- [18] Keras 官網中超參數測試範圍的設定
(<https://keras-team.github.io/keras-tuner/documentation/hyperparameters/>)
- [19] Keras 官網效能調校(Tuners)的介紹
(<https://keras-team.github.io/keras-tuner/documentation/tuners/>)
- [20] Keras 官網中 Oracle 的介紹
(<https://keras-team.github.io/keras-tuner/documentation/oracles/>)

第 5 章

- [1] Keras 官網『Model saving & serialization API』

(https://keras.io/api/models/model_saving_apis/)

[2] Keras 官網『Callbacks API』

(<https://keras.io/api/callbacks/>)

[3] 『A Walkthrough with UCI Census Data』

(<https://pair-code.github.io/what-if-tool/learn/tutorials/walkthrough/>)

[4] 參考範例

(https://colab.research.google.com/github/pair-code/what-if-tool/blob/master/What_If_Tool_Notebook_Usage.ipynb)

[5] TensorFlow 官網的 TensorBoard 指南

(https://www.tensorflow.org/tensorboard/get_started)

[6] TensorFlow 官網中的『TensorFlow Serving with Docker』案例

(<https://www.tensorflow.org/tfx/serving/docker>)

[7] TensorFlow 官網中的 TensorFlow Serving 架構說明

(<https://www.tensorflow.org/tfx/serving/architecture>)

[8] TensorFlow 官網中關於 Dataset 的說明

(https://www.tensorflow.org/api_docs/python/tf/data/Dataset)

[9] TensorFlow 官網中關於 Dataset 效能的說明

(https://www.tensorflow.org/guide/data_performance)

第 6 章

[1] Prateek Karkare, 《Convolutional Neural Networks—Simplified》, 2019

(<https://medium.com/x8-the-ai-community/cnn-9c5e63703c3f>)

[2] 《Convolutional Neural Networks—Simplified》文中卷積計算的 GIF 動圖

(https://miro.medium.com/max/963/1*wpbLgTW_lopZ6JtDqVByuA.gif)

[3] TensorFlow 內建的 Cifar 圖像

(<https://www.tensorflow.org/datasets/catalog/cifar10?hl=zh-tw>)

[4] TensorFlow/Keras 提供的資料增補函數 ImageDataGenerator 參數

(<https://keras.io/api/preprocessing/image/#imagedatagenerator-class>)

[5] Keras 官網提供的範例

(https://keras.io/examples/vision/image_classification_from_scratch/)

[6] Albumentations

(<https://github.com/albumentations-team/albumentations>)

- [7] Jason Brownlee, 《How to Visualize Filters and Feature Maps in Convolutional Neural Networks》, 2019
(<https://machinelearningmastery.com/how-to-visualize-filters-and-feature-maps-in-convolutional-neural-networks/>)
- [8] SHAP 套件的安裝與介紹說明
(<https://github.com/slundberg/shap>)
- [9] 維基百科中關於 Shapley value 的介紹
(https://en.wikipedia.org/wiki/Shapley_value)
- [10] LIME 套件的安裝與介紹說明
(<https://github.com/marcotcr/lime>)
- [11] Bolei Zhou, Aditya Khosla, Agata Lapedriza et al, 《Learning Deep Features for Discriminative Localization》, 2015
(<https://arxiv.org/pdf/1512.04150.pdf>)
- [12] Kaggle 中介紹的實作
(<https://www.kaggle.com/aakashnain/what-does-a-cnn-see>)

第 7 章

- [1] Sergey Ioffe、Christian Szegedy, 《Batch Normalization: Accelerating Deep Network Training by Reducing Internal Covariate Shift》, 2015
(<http://proceedings.mlr.press/v37/ioffe15.pdf>)
- [2] Kaiming He、Xiangyu Zhang、Shaoqing Ren、Jian Sun, 《Deep Residual Learning for Image Recognition》, 2015
(<https://arxiv.org/abs/1512.03385>)
- [3] Keras 官網關於 Keras Applications 的介紹
(<https://keras.io/api/applications/>)
- [4] Marie Stephen Leo, 《How to Choose the Best Keras Pre-Trained Model for Image Classification》, 2020
(<https://towardsdatascience.com/how-to-choose-the-best-keras-pre-trained-model-for-image-classification-b850ca4428d4>)
- [5] yrevar GitHub
(<https://gist.github.com/yrevar/942d3a0ac09ec9e5eb3a>)
- [6] Ethan Rosenthal, 《Using Keras' Pretrained Neural Networks for Visual Similarity Recommendations》, 2016
(<https://www.ethanrosenthal.com/2016/12/05/recasketch-keras/>)
- [7] Tensorflow 官網提供的範例『Load images』

(https://www.tensorflow.org/tutorials/load_data/images)

[8] Sergey Ioffe 、Christian Szegedy, 《Batch Normalization: Accelerating Deep Network Training by Reducing Internal Covariate Shift》, 2015

(<https://arxiv.org/pdf/1502.03167.pdf>)

[9] Aman Sawarn, 《Why Batch Normalization Matters?》, 2020

(<https://medium.com/towards-artificial-intelligence/why-batch-normalization-matters-4a6d753ba309>)

[10] alexirpan, 《On The Perils of Batch Norm》, 2017

(<https://www.alexirpan.com/2017/04/26/perils-batch-norm.html>)

第 8 章

[1] Joseph Redmon 、Anelia Angelova, 《Real-Time Grasp Detection Using Convolutional Neural Networks》, 2015

(https://docs.google.com/presentation/d/1Zc9-iR1eVz-zysinwb7bzLGC2no2ZiaD897_14dGbhw/edit?usp=sharing)

[2] 2011 年 ImageNet ILSVRC 挑戰賽比賽說明

(<http://image-net.org/challenges/LSVRC/2011/index>)

[3] 2017 年 ImageNet ILSVRC 挑戰賽比賽說明

(<http://image-net.org/challenges/LSVRC/2017/>)

[4] Fei-Fei Li 、Justin Johnson 、Serena Yeung, 《Lecture 11: Detection and Segmentation》, 2017

(http://cs231n.stanford.edu/slides/2017/cs231n_2017_lecture11.pdf)

[5] Adrian Rosebrock, 《Image Pyramids with Python and OpenCV》, 2015

(<https://www.pyimagesearch.com/2015/03/16/image-pyramids-with-python-and-open-cv/>)

[6] IIPImage

(<https://iipimage.sourceforge.io/documentation/images/>)

[7] Adrian Rosebrock, 《Sliding Windows for Object Detection with Python and OpenCV》, 2015

(<https://www.pyimagesearch.com/2015/03/23/sliding-windows-for-object-detection-with-python-and-opencv/>)

[8] 素娜 93, 《方向梯度直方圖 (HOG)》, 2017

(<https://www.jianshu.com/p/6f69c751e9e7>)

[9] Adrian Rosebrock, 《Histogram of Oriented Gradients and Object Detection》, 2014

(<https://www.pyimagesearch.com/2014/11/10/histogram-oriented-gradients-object-det>)

[ection/](#))

[10] Adrian Rosebrock,《Non-Maximum Suppression for Object Detection in Python》, 2014

(<https://www.pyimagesearch.com/2014/11/17/non-maximum-suppression-object-detection-python/>)

[11] Tomasz Malisiewicz, 《Ensemble of Exemplar-SVMs for Object Detection and Beyond》

(<http://www.cs.cmu.edu/~tmalisie/projects/iccv11/index.html>)

[12] Ross Girshick 、Jeff Donahue 、Trevor Darrell 、Jitendra Malik, 《Rich feature hierarchies for accurate object detection and semantic segmentation》 , 2014

(<https://arxiv.org/pdf/1311.2524.pdf>)

[13] Lung-Ying Ling, 《R-CNN 學習筆記, LaptrinhX》 , 2019

(<https://laptrinhx.com/r-cnn-xue-xi-bi-ji-1145354539/>)

[14] Kaiming He 、Xiangyu Zhang 、Shaoqing Ren 、Jian Sun,《Spatial Pyramid Pooling in Deep Convolutional Networks for Visual Recognition》 , 2015

(<https://arxiv.org/abs/1406.4729>)

[15] v1_vivian, 《SPP-Net 論文詳解》 , 2017

(<https://www.itread01.com/content/1542334444.html>)

[16] Ross B. Girshick 於 GitHub 上放置的 Faster R-CNN 程式碼

(<https://github.com/rbgirshick/py-faster-rcnn>)

[17] YOLO 官網

(<https://pjreddie.com/darknet/yolo/>)

[18] Alexey Bochkovskiy 、Chien-Yao Wang 、Hong-Yuan Mark Liao, 《YOLOv4: Optimal Speed and Accuracy of Object Detection》 , 2020

(<https://arxiv.org/abs/2004.10934>)

[19] YOLO5 GitHub

(<https://github.com/ultralytics/yolov5>)

[20] Joseph Redmon 、Santosh Divvala 、Ross Girshick 、Ali Farhadi, 《You Only Look Once: Unified, Real-Time Object Detection》 , 2016

(<https://docs.google.com/presentation/d/1kAa7NOamBt4calBU9iHgT8a86RRHz9Yz2oh4-GTdX6M/edit?usp=sharing>)

[21] Jason Brownlee, 《How to Perform Object Detection With YOLOv3 in Keras》 , 2019

(<https://machinelearningmastery.com/how-to-perform-object-detection-with-yolov3-in-keras/>)

- [22] YOLO4 GitHub
(<https://github.com/SoloSynth1/tensorflow-yolov4>)
- [23] COCO 資料集的 80 個類別
(https://github.com/amikeliive/coco-labels/blob/master/coco-labels-2014_2017.txt)
- [24] Aditya Chakraborty, 《Create your own dataset for YOLOv4 object detection in 5 minutes》, 2020
(<https://medium.com/analytics-vidhya/create-your-own-dataset-for-yolov4-object-detection-in-5-minutes-fdc988231088>)
- [25] YOLO4 GitHub
(<https://github.com/AlexeyAB/darknet>)
- [26] SSD 官網
(<https://github.com/weiliu89/caffe/tree/ssd>)
- [27] LoveMIss-Y, 《一文看盡目標檢測演算法 SSD 的核心架構與設計思想》, 2019
(https://blog.csdn.net/qq_27825451/article/details/89137697)
- [28] TensorFlow 2 Detection Model Zoo
(https://github.com/tensorflow/models/blob/master/research/object_detection/g3doc/tf2_detection_zoo.md)
- [29] TensorFlow Object Detection API 的安裝環境需求
(<https://tensorflow-object-detection-api-tutorial.readthedocs.io/en/latest/>)
- [30] Python Image Processing Cookbook GitHub
(<https://github.com/PacktPublishing/Python-Image-Processing-Cookbook>)
- [31] Tensorflow Object Detection API 官網文件
(<https://tensorflow-object-detection-api-tutorial.readthedocs.io/en/latest/training.html>)
- [32] Oz Ramos, 《Introducing Handsfree.js - Integrate hand, face, and pose gestures to your frontend》
(<https://dev.to/midiblocks/introducing-handsfree-js-integrate-hand-face-and-pose-gestures-to-your-frontend-4g3p>)
- [33] Jen Looper,《Ombromanie: Creating Hand Shadow stories with Azure Speech and TensorFlow.js Handposes》
(<https://dev.to/azure/ombromanie-creating-hand-shadow-stories-with-azure-speech-and-tensorflow-js-handposes-3c1n>)

第 9 章

- [1] Vijay Badrinarayanan、Alex Kendall、Roberto Cipolla, 《SegNet: A Deep Convolutional Encoder-Decoder Architecture for Image Segmentation》, 2015

(<https://arxiv.org/abs/1511.00561>)

[2] keras-mnist-VAE GitHub
(<https://github.com/lyeoni/keras-mnist-VAE>)

[3] Liang-Chieh Chen、George Papandreou 等人,《DeepLab: Semantic Image Segmentation with Deep Convolutional Nets, Atrous Convolution, and Fully Connected CRFs》, 2017
(<https://arxiv.org/pdf/1606.00915.pdf>)

[4] Guosheng Lin、Anton Milan、Chunhua Shen,《RefineNet: Multi-Path Refinement Networks for High-Resolution Semantic Segmentation》, 2016
(<https://arxiv.org/pdf/1611.06612.pdf>)

[5] Hengshuang Zhao、Jianping Shi、Xiaojuan Qi,《Pyramid Scene Parsing Network》, 2017
(<https://arxiv.org/pdf/1612.01105.pdf>)

[6] Olaf Ronneberger、Philipp Fischer、Thomas Brox,《U-Net: Convolutional Networks for Biomedical Image Segmentation》, 2015
(<https://arxiv.org/pdf/1505.04597.pdf>)

[7] Keras 官網提供的範例『Image segmentation with a U-Net-like architecture』
(https://keras.io/examples/vision/oxford_pets_image_segmentation/)

[8] Harshall Lamba,《Understanding Semantic Segmentation with UNET》, 2019
(<https://towardsdatascience.com/understanding-semantic-segmentation-with-unet-6be4f42d4b47>)

[9] Kaiming He、Georgia Gkioxari、Piotr Dollár 等人,《Mask R-CNN》, 2018
(<https://arxiv.org/pdf/1703.06870.pdf>)

[10] akTwelve Mask R-CNN 函數庫
(https://github.com/akTwelve/Mask_RCNN)

[11] Jason Brownlee,《How to Use Mask R-CNN in Keras for Object Detection in Photographs》, 2020
(<https://machinelearningmastery.com/how-to-perform-object-detection-in-photographs-with-mask-r-cnn-in-keras/>)

[12] fast-style-transfer GitHub
(<https://github.com/lengstrom/fast-style-transfer>)

[13] 翁書婷,《催生全球首位 AI 繪師 Andy, 美圖搶攻人工智慧卻面臨一大挑戰》, 2017
(<https://www.bnext.com.tw/article/47330/ai-andy-meitu>)

[14] Leon A. Gatys、Alexander S. Ecker、Matthias Bethge,《A Neural Algorithm of

Artistic Style》, 2015

(<https://arxiv.org/abs/1508.06576>)

[15] TensorFlow 官網提供的範例『Neural Style Transfer』

(https://www.tensorflow.org/tutorials/generative/style_transfer)

[16] Kaipeng Zhang、Zhanpeng Zhang、Zhifeng Li、Yu Qiao,《Joint Face Detection and Alignment using Multi-task Cascaded Convolutional Networks》, 2016

(<https://arxiv.org/abs/1604.02878>)

[17] MTCNN_face_detection_alignment GitHub

(https://github.com/kpzhang93/MTCNN_face_detection_alignment)

[18] face-recognition GitHub 的範例

(https://github.com/ageitgey/face_recognition)

[19] 陳昭明,《dlib 安裝心得 -- Windows 環境》, 2020

(<https://ithelp.ithome.com.tw/articles/10231535>)

[20] Shaoqing Ren、Xudong Cao、Yichen Wei 等人,《Face Alignment at 3000 FPS via Regressing Local Binary Features》, 2014

(http://www.jiansun.org/papers/CVPR14_FaceAlignment.pdf)

[21] Georgios Tzimiropoulos、Maja Pantic,《Optimization problems for fast AAM fitting in-the-wild》, 2013

(https://ibug.doc.ic.ac.uk/media/uploads/documents/tzimirop_pantic_iccv2013.pdf)

[22] V.Kazemi、J. Sullivan,《One Millisecond Face Alignment with an Ensemble of Regression Trees》, 2014

(http://www.csc.kth.se/~vahidk/face_ert.html)

[23] Filip Zelic、Anuj Sable,《A comprehensive guide to OCR with Tesseract, OpenCV and Python》, 2021

(<https://nanonets.com/blog/ocr-with-tesseract/>)

[24] Tesseract 官網的語言列表

(<https://github.com/tesseract-ocr/tesseract/blob/master/doc/tesseract.1.asc#LANGUAGES>)

[25] Aswinth Raj,《Car License Plate Recognition using Raspberry Pi and OpenCV》, 2019

(<https://circuitdigest.com/microcontroller-projects/license-plate-recognition-using-raspberry-pi-and-opencv>)

[26] Disadvantages of CNN models

(<https://iq.opengenus.org/disadvantages-of-cnn/>)

第 10 章

- [1] 自由時報,《全球首次！AI 創作肖像畫 10 月佳士得拍賣》, 2018
(<https://news.ltn.com.tw/news/world/breakingnews/2529174>)
- [2] 佳士得官網《Is artificial intelligence set to become art's next medium?》
(<https://www.christies.com/features/A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx>)
- [3] 佳士得官網關於 Edmond de Belamy 肖像畫的介紹
(<https://www.christies.com/lot/lot-edmond-de-belamy-from-la-famille-de-6166184>)
- [4] the-gan-zoo GitHub
(<https://github.com/hindupuravinash/the-gan-zoo>)
- [5] Liqian Ma、Xu Jia、Qianru Sun 等人,《Pose Guided Person Image Generation》, 2018
(<https://arxiv.org/pdf/1705.09368.pdf>)
- [6] Yanghua Jin、Jiakai Zhang 等人,《Towards the Automatic Anime Characters Creation with Generative Adversarial Networks》, 2017
(<https://arxiv.org/pdf/1708.05509.pdf>)
- [7] Yunje Choi、Minje Choi、Munyoung Kim 等人,《StarGAN: Unified Generative Adversarial Networks for Multi-Domain Image-to-Image Translation》, 2017
(<https://arxiv.org/abs/1711.09020>)
- [8] Christian Ledig、Lucas Theis、Ferenc Huszár 等人,《Photo-Realistic Single Image Super-Resolution Using a Generative Adversarial Network》, 2017
(<https://arxiv.org/pdf/1609.04802.pdf>)
- [9] Tero Karras、Samuli Laine、Miika Aittala 等人,《Analyzing and Improving the Image Quality of StyleGAN》, 2020
(<https://arxiv.org/pdf/1912.04958.pdf>)
- [10] Jonathan Hui,《GAN — Some cool applications of GAN》, 2018
(<https://jonathan-hui.medium.com/gan-some-cool-applications-of-gans-4c9ecca35900>)
- [11] Keras 官網範例『DCGAN to generate face images』
(https://keras.io/examples/generative/dcgan_overriding_train_step/)
- [12] Tero Karras、Timo Aila、Samuli Laine 等人,《Progressive Growing of GANs for Improved Quality, Stability, and Variation》, 2017
(<https://arxiv.org/abs/1710.10196>)
- [13] Mehdi Mirza、Simon Osindero,《Conditional Generative Adversarial Nets》, 2014

(<https://arxiv.org/abs/1411.1784>)

[14] Qiwen Fu 、 Wei-Ting Hsu 、 Mu-Heng Yang, 《Colorization Using ConvNet and GAN》 , 2017

(<http://cs231n.stanford.edu/reports/2017/pdfs/302.pdf>)

[15] ColorGAN GitHub

(<https://github.com/bbc/ColorGAN#end-to-end-conditional-gan-based-architectures-for-image-colourisation>)

[16] Phillip Isola 、 Jun-Yan Zhu 、 Tinghui Zhou, 《Image-to-Image Translation with Conditional Adversarial Networks》 , 2016

(<https://arxiv.org/abs/1611.07004>)

[17] CMP Facade Database

(<https://cmp.felk.cvut.cz/~tylecr1/facade/>)

[18] Jun-Yan Zhu 、 Taesung Park 、 Phillip Isola 、 Alexei A. Efros, 《Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks》 , 2017

(<https://arxiv.org/abs/1703.10593>)

[19] Tensorflow 官網有關 CycleGAN 的說明

(https://www.tensorflow.org/datasets/catalog/cycle_gan)

[20] 李宏毅老師的 PPT 『Introduction of Generative Adversarial Network (GAN)』

(https://speech.ee.ntu.edu.tw/~tlkagk/slide/Tutorial_HYLee_GAN.pdf)

[21] Shakir Mohamed 、 Danilo Rezende,《Tutorial on Deep Generative Models》, 2017

(<http://www.shakirm.com/slides/DeepGenModelsTutorial.pdf>)

[22] Alan Zucconi, 《Understanding the Technology Behind DeepFakes》 , 2018

(<https://www.alanzucconi.com/2018/03/14/understanding-the-technology-behind-deep-fakes/>)

[23] Aayush Bansal 、 Shugao Ma 、 Deva Ramanan 、 Yaser Sheikh, 《Recycle-GAN: Unsupervised Video Retargeting》 , 2018

(<https://arxiv.org/abs/1808.05174>)

[24] Jonathan Hui, 《Detect AI-generated Images & Deepfakes》 , 2020

(<https://jonathan-hui.medium.com/detect-ai-generated-images-deepfakes-part-1-b518ed5075f4>)

[25] Louis (What's AI) Bouchard, 《DeepFakes in 5 minutes》 , 2020

(<https://pub.towardsai.net/deepfakes-in-5-minutes-155c13d48fa3>)

[26] Jonathan Hui, 《Detect AI-generated Images & Deepfakes (Part 1)》 , 2020

(<https://jonathan-hui.medium.com/detect-ai-generated-images-deepfakes-part-1-b518ed5075f4>)

[d5075f4](#))

[27] 林妍臻,《微軟開發能判別 Deepfake 影像及內容變造的技術》, 2020
(<https://www.ithome.com.tw/news/139740>)

第 11 章

[1] Sebastian Andrei,《South Korea's Convenience Store Culture》, 2018
(https://medium.com/@sebastian_andrei/south-koreas-convenience-store-culture-187c33a649a6)

[2] 維基百科關於 tf-idf 的說明
(<https://en.wikipedia.org/wiki/Tf%E2%80%93idf>)

[3] Tomas Mikolov、Quoc V. Le、Ilya Sutskever,《Exploiting Similarities among Languages for Machine Translation》, 2013
(<https://arxiv.org/pdf/1309.4168v1.pdf>)

[4] NSS,《An Intuitive Understanding of Word Embeddings: From Count Vectors to Word2Vec》, 2017
(<https://www.analyticsvidhya.com/blog/2017/06/word-embeddings-count-word2veec/>)

[5] Ria Kulshrestha,《NLP 102: Negative Sampling and GloVe》, 2019
(<https://towardsdatascience.com/nlp-101-negative-sampling-and-glove-936c88f3bc68>)

[6] Gensim 官網關於 Word2Vec 的說明
(<https://radimrehurek.com/gensim/models/word2vec.html>)

[7] Jeffrey Pennington、Richard Socher、Christopher D. Manning,《GloVe: Global Vectors for Word Representation》, 2014
(<https://www.aclweb.org/anthology/D14-1162.pdf>)

[8] 自由時報 蘇金鳳,《中市明第二輪分區限水 百貨業買 20 個水塔桶》, 2021
(<https://news.ltn.com.tw/news/life/breakingnews/3497315>)

[9] 布丁布丁吃布丁,《彙整中文與英文的詞性標註代號》, 2017
(<http://blog.pulipuli.info/2017/11/fasttag-identify-part-of-speech-in.html>)

[10] pkuseg GitHub
(<https://github.com/explosion/spacy-pkuseg>)

[11] spaCy 101 官網『spaCy 101: Everything you need to know』
(<https://spacy.io/usage/spacy-101>)

第 12 章

- [1] Christopher Olah, 《Understanding LSTM Networks》, 2015
(<https://colah.github.io/posts/2015-08-Understanding-LSTMs/>)
- [2] keras 官網 LSTM 的說明
(<https://keras.io/zh/layers/recurrent/>)
- [3] Jason Brownlee, 《Time Series Prediction with LSTM Recurrent Neural Networks in Python with Keras》, 2016
(<https://machinelearningmastery.com/time-series-prediction-lstm-recurrent-neural-networks-python-keras>)
- [4] Junyoung Chung、Caglar Gulcehre、KyungHyun Cho、Yoshua Bengio,《Empirical Evaluation of Gated Recurrent Neural Networks on Sequence Modeling》, 2014
(<https://arxiv.org/abs/1412.3555>)
- [5] Michael Phi, 《Illustrated Guide to LSTM's and GRU's: A step by step explanation》, 2018
(<https://towardsdatascience.com/illustrated-guide-to-lstms-and-gru-s-a-step-by-step-explanation-44e9eb85bf21>)
- [6] Alexandre Xavier, 《Predicting stock prices with LSTM》, 2019
(<https://medium.com/neuronio/predicting-stock-prices-with-lstm-349f5a0974d4>)
- [7] 陳昭明, 《演算法交易(Algorithmic Trading) 實作》, 2021
(<https://ithelp.ithome.com.tw/articles/10255111>)
- [8] 張俊林博客, 《深度學習中的注意力機制(2017 版)》, 2017
(<https://blog.csdn.net/malefactor/article/details/78767781>)
- [9] Meng Lee,《淺談神經機器翻譯 & 用 Transformer 與 TensorFlow 2 英翻中》, 2019
(<https://leemeng.tw/neural-machine-translation-with-transformer-and-tensorflow2.html>)
- [10] TensorFlow 官網所提供的範例『Neural machine translation with attention』
(https://www.tensorflow.org/tutorials/text/nmt_with_attention)
- [11] Andrej Karpathy, 《The Unreasonable Effectiveness of Recurrent Neural Networks》, 2015
(<http://karpathy.github.io/2015/05/21/rnn-effectiveness/>)
- [12] Ashish Vaswani、Noam Shazeer、Niki Parmar,《Attention Is All You Need》, 2017
(<https://arxiv.org/pdf/1706.03762.pdf>)
- [13] Raimi Karim, 《Illustrated: Self-Attention》, 2019

(<https://towardsdatascience.com/illustrated-self-attention-2d627e33b20a>)

[14] Jay Alammar, 《The Illustrated Transformer》, 2018
(<http://jalammar.github.io/illustrated-transformer/>)

[15] GeeksforGeeks, 《Self-attention in NLP》, 2020
(<https://www.geeksforgeeks.org/self-attention-in-nlp/>)

[16] Jason Brownlee, 《A Gentle Introduction to Calculating the BLEU Score for Text in Python》, 2019
(<https://machinelearningmastery.com/calculate-bleu-score-for-text-python/>)

[17] Jacob Devlin、Ming-Wei Chang、Kenton Lee、Kristina Toutanova, 《BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding》, 2018
(<https://arxiv.org/abs/1810.04805>)

[18] Rani Horev, 《BERT Explained: State of the art language model for NLP》, 2018
(<https://towardsdatascience.com/bert-explained-state-of-the-art-language-model-for-nlp-f8b21a9b6270>)

[19] BERT GitHub
(<https://github.com/google-research/bert>)

[20] Transformers GitHub
(<https://github.com/huggingface/transformers>)

[21] Transformers 『Quick tour』
(<https://huggingface.co/transformers/quicktour.html>)

[22] Transformers 官網 『Summary of the tasks』 的 Extractive Question Answering
(https://huggingface.co/transformers/task_summary.html#extractive-question-answering)

[23] Transformers 官網 『Summary of the tasks』 的 Masked Language Modeling
(https://huggingface.co/transformers/task_summary.html#masked-language-modeling)

[24] Transformers 官網 『Summary of the tasks』 的 Text Generation
(https://huggingface.co/transformers/task_summary.html#text-generation)

[25] Transformers 官網 『Summary of the tasks』 的 Named Entity Recognition
(https://huggingface.co/transformers/task_summary.html#named-entity-recognition)

[26] Transformers 官網 『Summary of the tasks』 的 Summarization
(https://huggingface.co/transformers/task_summary.html#summarization)

[27] Adam Roberts、Staff Software Engineer、Colin Raffel 等人, 《Exploring Transfer Learning with T5: the Text-To-Text Transfer Transformer》, 2020

(<https://ai.googleblog.com/2020/02/exploring-transfer-learning-with-t5.html>)

[28] Transformers 官網『Summary of the tasks』的 Translation
(https://huggingface.co/transformers/task_summary.html#translation)

[29] Transformers 官網『Training and fine-tuning』
(<https://huggingface.co/transformers/training.html#tensorflow>)

[30]
(https://colab.research.google.com/github/huggingface/notebooks/blob/master/examples/text_classification.ipynb)

[31] 王若樸,《AI 趨勢周報第 142 期：推理能力新突破！OpenAI 新作 GPT-f 能自動證明數學定理》, 2020
(<https://www.ithome.com.tw/news/140030>)

[32] 王若樸,《AI 趨勢周報第 167 期：臉書新模型融合自監督和 Transformer，不需標註資料還能揪出複製圖》, 2021
(<https://www.ithome.com.tw/news/144208>)

第 13 章

[1] Adnan Rehan,《10 Best Chatbot Development Frameworks to Build Powerful Bots》, 2020
(<https://geekflare.com/chatbot-development-frameworks/>)

[2] ChatBotAI GitHub
(<https://github.com/ahmadfaizalbh/Chatbot>)

[3] Dialogflow 的官網說明
(<https://cloud.google.com/dialogflow/docs>)

第 14 章

[1] Michael Picheny、Bhuvana Ramabhadran、Stanley F. Chen,《Lecture 1 Introduction/Signal Processing, Part I》, 2012
(<https://www.ee.columbia.edu/~stanchen/fall12/e6870/slides/lecture1.pdf>)

[2] Roger Jang (張智星),《Audio Signal Processing and Recognition (音訊處理與辨識)》, 2005
(<http://mirllab.org/jang/books/audioSignalProcessing/audioIntro.asp?language=chinese>)

[3] 國立臺灣大學普通物理實驗室官網關於示波器使用教學
(<https://web.phys.ntu.edu.tw/gphyslab/modules/tinyd2/index8803.html?id=7>)

[4] Pema Grg,《Audio Signal Processing》, 2020

- (<https://blog.ekbana.com/audio-signal-processing-f7e86d415489>)
- [5] File:CPT-Sound-ADC-DAC.svg Wikimedia Commons
(<https://commons.wikimedia.org/wiki/File:CPT-Sound-ADC-DAC.svg>)
- [6] Vincent Koops, 《Introduction Basic Audio Feature Extraction》, 2017
(http://www.cs.uu.nl/docs/vakken/msmt/lectures/SMT_B_Lecture5_DSP_2017.pdf)
- [7] Nagesh Singh Chauhan, 《Audio Data Analysis Using Deep Learning with Python (Part 1)》, 2020
(<https://www.kdnuggets.com/2020/02/audio-data-analysis-deep-learning-python-part-1.html>)
- [8] Henry Haefliger, 《Python audio spectrum analyzer》, 2019
(<https://medium.com/quick-code/python-audio-spectrum-analyser-6a3c54ad950>)
- [9] Nagesh Singh Chauhan, 《Audio Data Analysis Using Deep Learning with Python (Part 2)》, 2020
(<https://www.kdnuggets.com/2020/02/audio-data-analysis-deep-learning-python-part-2.html>)
- [10] Kunal Vaidya, 《Music Genre Recognition using Convolutional Neural Networks (CNN) — Part 1》, 2020
(<https://towardsdatascience.com/music-genre-recognition-using-convolutional-neural-networks-cnn-part-1-212c6b93da76>)
- [11] 陳昭明, 《Day 25：自動語音辨識(Automatic Speech Recognition) -- 觀念與實踐》, 2018
(<https://ithelp.ithome.com.tw/articles/10195763>)
- [12] kaggle 官網『TensorFlow Speech Recognition Challenge』
(<https://www.kaggle.com/c/tensorflow-speech-recognition-challenge>)
- [13] 維基百科關於音素的說明
(<https://zh.wikipedia.org/wiki/音位>)
- [14] Oscar Contreras Carrasco, 《Gaussian Mixture Models Explained》, 2019
(<https://towardsdatascience.com/gaussian-mixture-models-explained-6986aaf5a95>)
- [15] 心學-知行合一, 《語音辨識系列 2--基於 WFST 解碼器_u012361418 的博客-程式師宅基地》, 2019
(<http://www.cxyzjd.com/article/u012361418/90289912>)
- [16] 『愛丁堡大學語音辨識課程』第 11 章
(<http://www.inf.ed.ac.uk/teaching/courses/asr/lectures-2019.html>)
- [17] 陳柏琳, 《現階段大詞彙連續語音辨識研究之簡介》, 2005

http://berlin.csie.ntnu.edu.tw/Berlin_Research/Manuscripts/2005_ACLC_LP-Newsletter_現階段大詞彙連續語音辨識研究之簡介_Final.pdf)

第 15 章

[1] 維基百科關於強化學習的說明

(<https://zh.wikipedia.org/wiki/%E5%BC%BA%E5%8C%96%E5%AD%A6%E4%B9%A0>)

[2] Sayan Mandal, 《Install OpenAI Gym with Box2D and Mujoco in Windows 10》, 2019

(<https://medium.com/@sayanmnd121/install-openai-gym-with-box2d-and-mujoco-in-windows-10-e25ee9b5c1d5>)

[3] Denny Britz Github

(<https://github.com/dennybritz/reinforcement-learning>)

[4] 維基百科關於蒙地卡羅方法的說明

(<https://zh.wikipedia.org/wiki/%E8%92%99%E5%9C%B0%E5%8D%A1%E7%BE%85%E6%96%B9%E6%B3%95>)

[5] Yaodong Yang、Jun Wang, 《An Overview of Multi-Agent Reinforcement Learning from Game Theoretical Perspective》, 2020

(<https://arxiv.org/abs/2011.00583>)

[6] Jeremy Zhang, 《Reinforcement Learning — Implement TicTacToe》, 2019

(<https://towardsdatascience.com/reinforcement-learning-implement-tictactoe-189582bea542>)