CA3109 Reading: *Optional*

Machine Learning Overview:

1. AI v Machine Learning v Deep Learning: https://www.ibm.com/cloud/blog/ai-vs-machine-learning-vs-deep-learning-vs-neural-networks
2. Machine Learning Cheat Sheet: https://stanford.edu/~shervine/teaching/cs-229/cheatsheet-machine-learning-tips-and-tricks
3. Machine Learning v Neural Networks: https://www.weka.io/learn/machine-learning-gpu/machine-learning-vs-neural-networks#:~:text=What%20are%20the%20differences%20between,to%20make%20brain%2Dlike%20decisions.
4. Guide to Neural Networks: https://towardsdatascience.com/the-mostly-complete-chart-of-neural-networks-explained-3fb6f2367464
5. Ethics of Data Mining: https://scholarworks.rit.edu/cgi/viewcontent.cgi?article=1443&context=article
6. Machine learning and computation-enabled intelligent sensor design, https://www.nature.com/articles/s42256-021-00360-9
7. 5 examples of Cluster Analysis https://www.statology.org/cluster-analysis-real-life-examples/
8. Overview of Feature Selection: https://www.researchgate.net/publication/333168554_Overview_Feature_Selection_using_Fish_Swarm_Algorithm
9. Statistics-Based Data Preprocessing Methods and Machine Learning Algorithms for Big Data Analysis: https://www.aut.upt.ro/~rprecup/IJAI_59.pdf
10. Data Science vs Data Engineering vs Machine Learning Engineering, https://medium.com/analytics-vidhya/data-science-vs-data-engineering-vs-machine-learning-engineering-34213e3db591
11. Machine Learning Trends for 2023: https://serokell.io/blog/ai-ml-trends
12. Cost-benefit analysis, - working with a business, https://www.cdc.gov/policy/polaris/economics/cost-benefit/index.html#:~:text=

Cost%2Dbenefit%20analysis%20is%20a,(CEA)%20include%20health%20outcomes.

13. Data Analytics and the use case of REAL MADRID, https://www.managingmadrid.com/2020/3/19/21186962/machine-learning-analysis-why-have-real-madrid-been-so-poor-in-la
14. How to label images for ML: https://blog.roboflow.com/tips-for-how-to-label-images/
15. Recommendation Systems (Netflix): https://medium.com/@rishabhbhatia315/recommendation-system-evaluation-metrics-3f6739288870
16. Anonymisation code of practice UK, https://ico.org.uk/media/1061/anonymisation-code.pdf
17. Anonymisation code of practice EU: https://edps.europa.eu/system/files/2021-04/21-04-27_aepd-edps_anonymisation_en_5.pdf
18. Feature Selection for Beginners: https://towardsdatascience.com/beginners-guide-for-feature-selection-by-a-beginner-cd2158c5c36a

Use Cases for ML

19. Machine learning approach towards explaining water quality dynamics in an urbanised river: https://www.nature.com/articles/s41598-022-16342-9
20. Applications of ML/DL in the management of smart cities and societies based on new trends in information technologies: A systematic literature review, https://www.sciencedirect.com/science/article/pii/S2210670722004061
21. Crop yield prediction using machine learning: A systematic literature review, https://www.sciencedirect.com/science/article/pii/S0168169920302301
22. A method for AI assisted human interpretation of neonatal EEG, https://www.nature.com/articles/s41598-022-14894-4
23. AI can make Bank Loans more fair: https://hbr.org/2020/11/ai-can-make-bank-loans-more-fair
24. Top ML use cases in Finance: https://kindgeek.com/blog/post/5-top-machine-learning-use-cases-in-finance-a

nd-banking-industry

25. CRISPR technology: A decade of genome editing is only the beginning, https://www.science.org/doi/10.1126/science.add8643

26. Towards an Automatic Pollen Detection System in Ambient Air Using Scattering Functions in the Visible Domain, https://www.mdpi.com/1424-8220/22/13/4984

27. Artificial Intelligence and Machine Learning in Sport Research: An Introduction for Non-data Scientists, https://www.frontiersin.org/articles/10.3389/fspor.2021.682287/full

Tools/ Datasets

28. Data Camp ML cheat Sheet: https://s3.amazonaws.com/assets.datacamp.com/email/other/ML+Cheat+Sheet_2.pdf
29. Medical Datasets: https://www.altexsoft.com/blog/medical-datasets/
30. Cancer imaging Dataset: https://www.cancerimagingarchive.net/
31. National Covid Database UK: https://transform.england.nhs.uk/covid-19-response/data-and-covid-19/national-covid-19-chest-imaging-database-nccid/
32. Oasis Brain Dataset: https://www.oasis-brains.org/
33. EEG Dataset: https://github.com/meagmohit/EEG-Datasets
34. How to train a dataset example: https://www.youtube.com/watch?v=fwY9Qv96DJY
35. Coding / Model Notebook: https://jupyter.org/
36. Train Test Split: https://scikit-learn.org/stable/modules/generated/sklearn.model_selection.train_test_split.html
37. Python pre-trained models for image classification: https://www.analyticsvidhya.com/blog/2020/08/top-4-pre-trained-models-for-image-classification-with-python-code/
38. IMAGENET: https://image-net.org/challenges/LSVRC/index.php

39. Trail small use case dataset forTitanic, https://data.world/nrippner/titanic-disaster-dataset
40. ResNet50: https://uk.mathworks.com/help/deeplearning/ref/resnet50.html
41. KERAS, using pre-trained Image Net models: https://learnopencv.com/keras-tutorial-using-pre-trained-imagenet-models/
42. KERAS: https://keras.io/examples/vision/image_classification_efficientnet_fine_tuning/#transfer-learning-from-pretrained-weights
43. Machine Learning reading list https://ml.berkeley.edu/reading-list/
44. Awesome Machine Learning (Books): https://github.com/josephmisiti/awesome-machine-learning/blob/master/books.md
45. Open AI cookbook: https://github.com/openai/openai-cookbook
46. https://matlabacademy.mathworks.com/details/machine-learning-onramp/machinelearning