Machine Learning Lab

Exercise 1: Pointers to related learning material

1.1
See Also
Vectors, Math is Fun (https://www.mathsisfun.com/algebra/vectors.html)

Euclidian vector, Wikipedia (https://en.wikipedia.org/wiki/Euclidean_vector)

1.2
See Also
Matrix, Wikipedia (https://en.wikipedia.org/wiki/Matrix_(mathematics))

Matrix, Wolfram MathWorld (http://mathworld.wolfram.com/Matrix.html)

1.3
See Also
Sparse matrices, SciPy documentation (https://docs.scipy.org/doc/scipy/reference/sparse.html)

101 Ways to Store a Sparse Matrix (https://medium.com/@jmaxg3/101-ways-to-store-a-sparse-matrix-c7f2bf15a229)
1.12
See Also
The Rank of a Matrix,
(https://www.cliffsnotes.com/study-guides/algebra/linear-algebra/real-euclidean-vector-spaces/the-rank-of-a-matrix)

1.13
See Also
The determinant | Essence of linear algebra, Blue1Brown
(https://www.youtube.com/watch?v=Ip3X9LOh2dk)

Determinant, Wolfram MathWorld
(http://mathworld.wolfram.com/Determinant.html)

1.15
See Also
The Trace of a Square Matrix (http://mathonline.wikidot.com/the-trace-of-asquare-matrix)

1.16
See Also
Eigenvectors and Eigenvalues Explained Visually, Setosa.io (http://setosa.io/ev/eigenvectors-and-eigenvalues/)

Eigenvectors and eigenvalues | Essence of linear algebra, 3Blue1Brown (https://www.youtube.com/watch?v=PFDu9oVAE-g)

1.17
See Also
Vector dot product and vector length, Khan Academy (https://www.khanacademy.org/math/linear-algebra/vectors-and-spaces/dot-crossproducts/v/vector-dot-product-and-vector-length)

Dot Product, Paul's Online Math Notes (http://tutorial.math.lamar.edu/Classes/CalcII/DotProduct.aspx)

1.19
See Also
Array vs Matrix Operations, MathWorks
(https://www.mathworks.com/help/matlab/matlab_prog/array-vs-matrix-operations.html?requestedDomain=true)

1.20
See Also
Inverse of a Matrix (http://www.mathwords.com/i/inverse_of_a_matrix.htm)