

# B

## References

The author does not give any guarantee that web references and links listed for some references are still accessible.

### Chapter 1, Getting Started

[1:1] Iry, James. "Monads are Elephants Part 2." <http://james-iry.blogspot.com/2007/10/monads-are-elephants-part-2.html>.

[1:2] Meredith, L.G. "7. A Review of Collections as Monads." *Monad Design for the Web*. Artima. 2012.

[1:3] Gupta, M. K. "1. Introduction to Akka." *Akka Essentials*. Packt Publishing. 2012.

[1:4] Alpaydin, E. "1.2 Examples of Machine Learning Applications." *Introduction to Machine Learning*. The MIT Press. 2004 – 2007.

[1:5] Bishop, C. "1.2 Probability Theory." *Pattern Recognition and Machine Learning*. Springer. 2006.

[1:6] The Apache Software Foundation. "Apache Commons Math 3.3." <http://commons.apache.org/proper/commons-math/>.

[1:7] JFreeChart Version 1.0.1. Object Refinery Limited. 2013. <http://www.jfree.org/jfreechart/>.

[1:8] Scalanlp/Breeze Wiki. <https://github.com/scalanlp/breeze/wiki>.

[1:9] Odersky, M., Spoon, L., and Venners, B. "19 Type Parameterization." *Programming in Scala*. 2nd edition. Artima. 2008.

[1:10] Eriksen, M. Effective Scala. Twitter 2012. <http://twitter.github.io/effectivescala>.

## Chapter 2, Hello World!

[2:1] "Scientific modelling." Wikipedia, the free encyclopedia. Wikimedia Foundation. [http://en.wikipedia.org/wiki/Scientific\\_modelling](http://en.wikipedia.org/wiki/Scientific_modelling).

[2:2] Inside F#. Brian's thoughts on F# and .NET. "Pipelining in F#." 2008. <http://lorgonblog.wordpress.com/2008/03/30/pipelining-in-f/>.

[2:3] Odersky, M., Spoon, L., and Venners, B. "17 Collections." *Programming in Scala*. 2nd edition. Artima. 2008.

[2:4] Odersky, M., Spoon, L., Venners, B. "12.5 Traits as stackable modification." *Programming in Scala*. 2nd edition. Artima. 2008.

[2:5] Mencik, V., Janecek, J., Prihoda, M. "Cake Pattern." Dependency Injection in Scala. 2013. <http://www.slideshare.net/czechscala/dependency-injection-in-scala-part>.

[2:6] Warski, A. "Extending the Cake pattern." *Dependency Injection in Scala*. Blog of Adam Warski. 2010. <http://www.warski.org/blog/2010/12/di-in-scala-cake-pattern/>.

[2:7] Alpaydin, E. "14.2 Cross-Validation and Resampling Methods." *Introduction to Machine Learning*. The MIT Press. 2004 – 2007.

[2:8] Murphy, K. "1.1 Introduction Example: Polynomial Curve Fitting." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.

[2:9] Hastie, T., Tibshirani, R., Friedman, J. "7.2 Bias, Variance and Model Complexity." *The Elements of Statistical Learning: Data Mining, Inference and Prediction*. Springer. 2001.

## Chapter 3, Data Preprocessing

[3:1] "Moving Averages." Wikipedia, the free encyclopedia, Wikimedia Foundation. [http://en.wikipedia.org/wiki/Moving\\_average\\_model](http://en.wikipedia.org/wiki/Moving_average_model).

[3:2] Kumar, P., "Forecasting with weighted moving averages." Kushmanda Manpower 2011. <http://www.slideshare.net/birubiru/lecture-06-forecasting-weighted-moving-averages>.

[3:3] Van Den Bogert, T. *Practical Guide to Data Smoothing and Filtering*. 1996. <http://isbweb.org/software/sigproc/bogert/filter.pdf>.

[3:4] "Spectral density estimation." Wikipedia, the free encyclopedia, Wikimedia Foundation. [http://en.wikipedia.org/wiki/Spectral\\_estimation](http://en.wikipedia.org/wiki/Spectral_estimation).

- 
- [3:5] Brigham, E. O. *The Fast Fourier Transform and Its Applications*. Prentice-Hall. 1988.
- [3:6] Fourier Transform Tutorial: Learn difficult engineering concepts through interactive flash programs. <http://www.fourier-series.com/f-transform/>.
- [3:7] Burrus, C. S. The Cooley-Tukey Fast Fourier Transform Algorithm. OpenStax. <http://cnx.org/content/m16334/latest/>.
- [3:8] API Apache Software Foundation. "Apache Commons Math 3.3." <http://commons.apache.org/proper/commons-math/apidocs/index.html>.
- [3:9] Horstmann, C. "15.6 Specialization for primitive types." *Scala for the Impatient*. Addison-Wesley. 2012.
- [3:10] Welch, G., Bishop, G. "An introduction to the Kalman Filter." University of North Carolina. 2006. [http://www.cs.unc.edu/~welch/media/pdf/kalman\\_intro.pdf](http://www.cs.unc.edu/~welch/media/pdf/kalman_intro.pdf).
- [3:11] Abbeel, P. "HMMs, Kalman filters." *Advanced Robotics: lecture 22*. University of California. Berkeley. 2009. <http://www.eecs.berkeley.edu/~pabbeel/cs287-fa09/lecture-notes/lecture22-6pp.pdf>.
- [3:12] Maybeck, P. *Stochastic Models, Estimation and Control*. Academic Press. 1979.
- [3:13] "10-Year Treasury Note." Investopedia. <http://www.investopedia.com/terms/1/10-yeartreasury.asp>.
- [3:14] Plataniotis, K., Andoutsos, D., Venetsanopoulos, A. "Nonlinear Filtering of Non-Gaussian Noise." *Journal of Intelligent and Robotic Systems*. 19: 207 – 213. Kluwer Academic Publishers. 1997.

## Chapter 4, Unsupervised Learning

- [4:1] Dayan, P. Unsupervised Learning. MIT. *The MIT Encyclopedia of the Cognitive Sciences*. Wilson & Kiel editors. 1998. <http://www.gatsby.ucl.ac.uk/~dayan/papers/dun99b.pdf>.
- [4:2] Bullinaria, J. "Introduction to Neural Computation." *Learning Vector Quantization (LVQ)*. 2007. [http://www.cs.bham.ac.uk/~pxt/NC/lvq\\_jb.pdf](http://www.cs.bham.ac.uk/~pxt/NC/lvq_jb.pdf).
- [4:3] Hastie, T., Tibshirani, R., and Friedman, J. "14.3 Cluster Analysis." *The Elements of Statistical Learning: Data Mining, Inference and Prediction*. Springer. 2001.

- [4:4] Agha, M. and Ashour, W. "Efficient and Fast Initialization Algorithm for K-means Clustering." *International Journal of Intelligent Systems and Applications*. Islamic University of Gaza. 2012. <http://www.mecs-press.org/ijisa/ijisa-v4-n1/IJISA-V4-N1-3.pdf>.
- [4:5] Celebi, M E., Kingravi, H., Vela, P. "A Comparative Study of Efficient Initialization Methods for the K-Means Clustering Algorithms." 2012. <http://arxiv.org/pdf/1209.1960v1.pdf>.
- [4:6] Murphy, K. "25.1 Clustering Introduction." *Machine Learning: A Probabilistic Perspective*. MIT Press. 2012.
- [4:7] Dempster, A. P., Laird, N. M., and Rubin, D. B. "Maximum Likelihood from Incomplete Data via the EM Algorithm." *Journal of the Royal Statistical Society*. Vol. 39, No .1. 1977. <http://web.mit.edu/6.435/www/Dempster77.pdf>.
- [4:8] Murphy, K. "11.4 EM algorithm." *Machine Learning: A Probabilistic Perspective*. MIT Press. 2012.
- [4:9] Borman, S. "The Expectation Maximization Algorithm: A short tutorial." 2009. [http://www.seanborman.com/publications/EM\\_algorithm.pdf](http://www.seanborman.com/publications/EM_algorithm.pdf).
- [4:10] The Apache Software Foundation. "Apache Commons Math library 3.3. <http://commons.apache.org/proper/commons-math/javadocs/api-3.3/index.html>.
- [4:11] Bishop, C. "9.3.2 An Alternative View of EM- Relation to K-means." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [4:12] Murphy, K. "11.4.8 Online EM." *Machine Learning: A Probabilistic Perspective*. MIT Press. 2012.
- [4:13] Smith, L. "A Tutorial on Principal Components Analysis." 2002. [http://www.cs.otago.ac.nz/cosc453/student\\_tutorials/principal\\_components.pdf](http://www.cs.otago.ac.nz/cosc453/student_tutorials/principal_components.pdf).
- [4:14] Engelen, S., Hubert, M. "Fast Cross-validation in Robust PCA." *COMPSTAT 2004 symposium. Partial Least Squares*. Physica-Verlag/Springer. <http://wis.kuleuven.be/stat/robust/papers/2004/fastcvpcaCOMPSTAT2004.pdf>.
- [4:15] Fodor, I. "A survey of dimension reduction techniques." *Center for Applied Scientific Computing, Lawrence Livermore National Laboratory*. 2002. <http://computation.llnl.gov/casc/sapphire/pubs/148494.pdf>.
- [4:16] Keogh, E., Chakrabarti, K., Pazzani, M., and Mehrotra, S. "Dimension Reduction for Fast Similarity Search in Large Time Series Databases." *Department of Information and Computer Science. University of California Irvine*. 2000. <http://www.ics.uci.edu/~pazzani/Publications/dimen.pdf>.

---

[4:17] Thompson, D. Manifold learning with applications to object recognition. Carnegie-Mellon University Course AP 6. <https://www.cs.cmu.edu/~efros/courses/AP06/presentations/ThompsonDimensionalityReduction.pdf>.

## Chapter 5, Naïve Bayes Classifiers

[5:1] Koller, D. "Probabilistic Graphical Models: Overview and Motivation." Stanford University. <https://www.youtube.com/watch?v=6AVurePzK3Y>.

[5:2] Alpaydin, E. "3.2 Bayesian Decision Theory." *Introduction to Machine Learning*. The MIT Press. 2004.

[5:3] Murphy, K. "10 Directed graphical models." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.

[5:4] Heckerman, D., Meek, C., Koller, D. "Probabilistic Entity-Relationship Models, PRMs, and Plate Models." Stanford University. <http://robotics.stanford.edu/~koller/Papers/Heckerman+al:SRL07.pdf>.

[5:5] Downey, A. "1 Bayes's Theorem." *Think Bayes. Bayesian Statistics Made Simple*. Green Tea Press. 2010. <http://greenteapress.com/thinkbayes/html/index.html>.

[5:6] Murphy, K. "2.8.3 Theory-Mutual Information." *Machine Learning: A Probabilistic Perspective Information*. The MIT Press. 2012.

[5:7] Manning, C.D., Raghavan, P., and Schütze, H. "13.2 Naïve Bayes text classification" *Introduction to Information Retrieval*, Cambridge University Press. 2008.

[5:8] Zhang, H., Su, J. (University of New Brunswick), and Jiang, L (University of Geosciences, Wuhan). "Hidden Naïve Bayes." 2004. <http://www.cs.unb.ca/profs/hzhang/publications/AAAI051ZhangH1.pdf>.

[5:9] Bishop, C. "2.3.6 Bayesian inference for the Gaussian." *Pattern Recognition and Machine Learning*. Springer. 2006.

[5:10] ] Bishop, C. "2.1 Binary Variables." *Pattern Recognition and Machine Learning*. Springer. 2006.

[5:11] Collins, M. *Machine Learning Methods in Natural Language Processing*. MIT CSAIL. 2005. [http://www.cs.columbia.edu/~mcollins/papers/tutorial\\_colt.pdf](http://www.cs.columbia.edu/~mcollins/papers/tutorial_colt.pdf).

[5:12] "Dbpedia." Wikipedia, the free encyclopedia. Wikimedia Foundation. <http://en.wikipedia.org/wiki/DBpedia>.

- [5:13] Manning, C.D., Raghavan, P., and Schütze, H. "20 Web crawling and indexes." *Introduction to Information Retrieval*. Cambridge University Press. 2008.
- [5:14] Manning, C.D., Raghavan, P., Schütze, H. "25 Support vector machines and machine learning on documents." *Introduction to Information Retrieval*. Cambridge University Press. 2008.

## Chapter 6, Regression and Regularization

- [6:1] Ng, A. "Machine Learning Lecture 3 (CS 229)". Stanford University. 2008.
- [6:2] Bates, D. "1.2 The QR decomposition." *Matrix decompositions for regression analysis*. 2007. <http://www.stat.wisc.edu/courses/st849-bates/lectures/Orthogonal.pdf>.
- [6:3] Bates, D. "3.3 The Singular value decomposition." *Matrix decompositions for regression analysis*. 2007. <http://www.stat.wisc.edu/courses/st849-bates/lectures/Orthogonal.pdf>.
- [6:4] Ng, A. "Gradient Descent for Linear Regression." Stanford University. Coursera NL. Lecture 9. <https://class.coursera.org/ml-003/lecture/9>.
- [6:5] Stochastic gradient descent to find least square in linear regression Qize Study and Research. 2014. <http://qizeresearch.wordpress.com/2014/05/23/stochastic-gradient-descent-to-find-least-square-in-linear-regression/>.
- [6:6] "1.5 Multiple linear regression." Apache Commons Math Library 3.3. The Apache Software Foundation. <http://commons.apache.org/proper/commons-math/userguide/stat.html>.
- [6:7] Sarkka, S. "Lecture 2: From linear Regression to Kalman Filter and Beyond." Department of Biomedical Engineering and Computational Science. Helsinki University of Technology. 2009. [http://www.lce.hut.fi/~ssarkka/course\\_k2009/slides\\_2.pdf](http://www.lce.hut.fi/~ssarkka/course_k2009/slides_2.pdf).
- [6:8] Mitchell, S McLaughlin. "Introductory Workshop on Time Series Analysis Department of Political Science." University of Iowa. 2013. <http://qipsr.as.uky.edu/sites/default/files/mitchelltimeserieslecture102013.pdf>.
- [6:9] Bishop, C. "3.1 Linear Basis Function Models." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [6:10] Murphy, K. "13.1  $L_1$  Regularization basics." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.

- 
- [6:11] Ng, A. "Feature selection, L1 vs. L2 regularization, and rotational invariance." Computer Science Department. Stanford University. <http://www.machinelearning.org/proceedings/icml2004/papers/354.pdf>.
- [6:12] Bravo, H. and Irizarry, R. "Lecture 5: Model selection and assessment." Department of Computer Science. University of Maryland. 2010. <http://www.cbcb.umd.edu/~hcorrada/PracticalML/pdf/lectures/selection.pdf>.
- [6:13] Moore, C. An Introduction to Logistic and Probit Regression Models. University of Texas. 2013. [http://www.utexas.edu/cola/centers/prc/\\_files/cs/Fall2013\\_Moore\\_Logistic\\_Probit\\_Regression.pdf](http://www.utexas.edu/cola/centers/prc/_files/cs/Fall2013_Moore_Logistic_Probit_Regression.pdf).

## Chapter 7, Sequential Data Models

- [7:1] Sarawagi, S. "CRF Java library V 1.3." Indian Institute of Technology Bombay. 2008. <http://crf.sourceforge.net/>.
- [7:2] Alpaydin, E. "13.2 Discrete Markov Processes." *Introduction to Machine Learning*. The MIT Press. 2004.
- [7:3] Rabiner, L. "A Tutorial on Hidden Markov Models and Selected Applications in Speech Recognition." Proceedings of the IEEE. Volume 77. Feb 1989. <http://www.cs.ubc.ca/~murphyk/Bayes/rabiner.pdf>.
- [7:4] Stamp, M. "A Revealing Introduction to Hidden Markov Models." Department of Computer Science. San Jose State University. 2012. <http://www.cs.sjsu.edu/~stamp/RUA/HMM.pdf>.
- [7:5] Kasibhatla, A. "A brief introduction to Dynamic Programming." Nanocad Lab. University of California, Los Angeles. 2010. [http://nanocad.ee.ucla.edu/pub/Main/SnipetTutorial/Amar\\_DP\\_Intro.pdf](http://nanocad.ee.ucla.edu/pub/Main/SnipetTutorial/Amar_DP_Intro.pdf).
- [7:6] Bishop, C. "13.2.1 Maximum Likelihood for the HMM." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [7:7] Nichols, E. "Dynamic Programming in Machine Learning – Part 3: Viterbi Algorithm and Machine Learning." Nara Institute of Science and Technology. [https://www.youtube.com/watch?v=O\\_q82UMtj0M](https://www.youtube.com/watch?v=O_q82UMtj0M).
- [7:8] American Association of Individual Investors (AAII). <http://www.aaii.com>.
- [7:9] Lafferty, J. (Carnegie Mellon University), McCallum, A. (University of Massachusetts), and Pereira, F. (University of Pennsylvania). "Conditional Random Fields: Probabilistic Models for Segmenting and Labeling Sequence Data." 2001.

[7:10] Gong, Y., Xu, W. "9.6 Conditional Random Fields case study." *Machine Learning for Multimedia Content Analysis*. Springer. 2007.

[7:11] Murphy, K. "19.6.2.4 Conditional random fields: Natural language parsing." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.

[7:12] "3 Various Interfaces." Conditional Random Field. KReSIT. IIT Bombay. 2004. <http://crf.sourceforge.net/introduction/interfaces.html#FeatureGenerator>.

[7:13] Lin, X., Zhao, L., Yu, D., and Wu, X. "Distributed Training for Conditional Random Fields." Key Laboratory of Machine Perception and Intelligence. School of Electronics Engineering and Computer Science, China. 2010. <http://www.klmp.pku.edu.cn/Paper/UsrFile/97.pdf>.

## Chapter 8, Kernel Models and Support Vector Machines

[8:1] Murphy, K. "14.1 Kernels Introduction." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.

[8:2] Muller, A. An introduction into protein-sequence annotation. Dept. of Biological Sciences. Imperial College Center for Bioinformatics. 2002. <http://www.sbg.bio.ic.ac.uk/people/mueller/introPSA.pdf>.

[8:3] Bishop, C. "6.4 Gaussian processes." *Pattern Recognition and Machine Learning*. Springer. 2006.

[8:4] Alpaydin, E. "Nonparametric Regression: Smoothing Models." *Introduction to Machine Learning*. The MIT Press. 2007.

[8:5] Hastie, T., Tibshirani, R., and Friedman, J. "5.8 Regularization and Reproducing." *The Elements of Statistical Learning: Data Mining, Inference and Prediction*. Kernel Hilbert Spaces. Springer. 2001.

[8:6] Hastie, T., Tibshirani, R., and Friedman, J. "12.3.2 The SVM as a penalization method." *The Elements of Statistical Learning: Data Mining, Inference and Prediction*. Springer. 2001.

[8:7] Scholkopt, B. (Max Planck Institut für Biologische Kybernetik), Smola, A. (Australian National University). "A Short Introduction to Learning with Kernels." 2005. <http://alex.smola.org/papers/2003/SchSmo03c.pdf>.



- 
- [8:8] Gong, Y., Xu, W. "10.1.5 SVM Dual." *Machine Learning for Multimedia Content Analysis*. Springer. 2007.
- [8:9] Chang, C-C, Lin, C-J. "LIBSVM - A Library for Support Vector Machines." 2003. <http://www.csie.ntu.edu.tw/~cjlin/libsvm/>.
- [8:10] Soergel, D. "jLibSvm: Efficient Training of Support Vector Machines in Java." <https://github.com/davidsoergel/jlibsvm>.
- [8:11] Joachims, T. "SVMlight Support Vector Machine (SVMs) implementation in C." Department of Computer Science. Cornell University. 2008. <http://svmlight.joachims.org/>.
- [8:12] Murphy, K. "14.5.3 Kernels, Choosing C." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.
- [8:13] Nico, G. "Data Mining - (Anomaly | outlier | Rare Event) Detection." 2014. [http://gerardnico.com/wiki/data\\_mining/anomaly\\_detection](http://gerardnico.com/wiki/data_mining/anomaly_detection).
- [8:14] Murphy, K. "14.5.1 Kernels: SVMs for regression." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.
- [8:15] Bishop, C. "7.1.2 Sparse Kernel Machines: Relation to logistic regression." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [8:16] Tsang, I., Kwok, J., Cheung, P-M. "Very Large SVM Training using Core Vector Machines." Department of Computer Science. The Hong Kong University of Science and Technology. <http://www.gatsby.ucl.ac.uk/aistats/fullpapers/172.pdf>.
- [8:17] Joachims, T. Training Linear SVMs in Linear Time. Department of Computer Science. Cornell University. [http://www.cs.cornell.edu/people/tj/publications/joachims\\_06a.pdf](http://www.cs.cornell.edu/people/tj/publications/joachims_06a.pdf).

## Chapter 9, Artificial Neural Networks

- [9:1] Gharate, M. K. "Neural Network: A Review." PharmaInfo.net. 2007. <http://www.pharmainfo.net/reviews/neural-network-review>.
- [9:2] Rumelhart, R. and McClelland, J. *Parallel Distributed Processing*. The MIT Press. 1986.
- [9:3] Bishop, C. "5 Neural Networks: Introduction." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [9:4] De Wilde, P. "3.3 Mathematical Model." and "4.6 Lyapunov Theorem for Neural Networks." *Neural Network Models*. Springer. 1997.

- [9:5] Izenman, A. J. "10.7 Multilayer Perceptrons." *Modern Multivariate Statistical Techniques*. Springer. 2008.
- [9:6] Pavelka, A., Prochazka, A. "Algorithms for initialization of neural network weights." Department of Computing and Control Engineering. Institute of Chemical Technology. [http://dsp.vscht.cz/konference\\_matlab/matlab04/pavelka.pdf](http://dsp.vscht.cz/konference_matlab/matlab04/pavelka.pdf).
- [9:7] Gamma, E., Helm, R., Johnson, R., and Vlissides, J. "Object Creational: Builder." *Design Patterns: Elements of Reusable Object-Oriented Software*. Addison Wesley. 1995.
- [9:8] Alpaydin, E. "10.7.2 Multiple Classes." *Introduction to Machine Learning: Linear Discrimination*. The MIT Press. 2007.
- [9:9] Bishop, C. "5.3 Neural Networks: Error Backpropagation." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [9:10] Bishop, C. "5.2.4 Neural Networks: Gradient descent optimization." *Pattern Recognition and Machine Learning*. Springer. 2006.
- [9:11] Alpaydin, E. "11.8.1 Multilayer Perceptrons: Improving Convergence." *Introduction to Machine Learning*. The MIT Press. 2007.
- [9:12] Wilson, D. R. (Fonix Corporation), Martinez, T. R. (Brigham Young University). "The general inefficiency of batch training for gradient descent training." Elsevier. 2003. <http://axon.cs.byu.edu/papers/Wilson.nn03.batch.pdf>.
- [9:13] Srihari, S. "Regularization in Neural Networks." CSE 574. University of New York, Buffalo. <http://www.cedar.buffalo.edu/~srihari/CSE574/Chap5/Chap5.5-Regularization.pdf>.
- [9:14] Naeini, M. P., Taremin, H., and Hashemi, H. B. Stock Market Value Prediction Using Neural Networks. 2010 International Conference on Computer Information Systems and Industrial Management Applications. IEEE. [http://people.cs.pitt.edu/~hashemi/papers/CISIM2010\\_HBHashemi.pdf](http://people.cs.pitt.edu/~hashemi/papers/CISIM2010_HBHashemi.pdf).

## Chapter 10, Genetic Algorithms

- [10:1] Holland, J. *Adaptation in Natural and Artificial Systems: An introductory Analysis with Application to Biology, Control, and Artificial Intelligence*. The MIT Press. 1992.
- [10:2] Goldberg, D. *Genetic Algorithms in Search, Optimization, and Machine Learning*. Addison Wesley. 1989.
- [10:3] "What is Evolution? Stated Clearly." 2013. <https://www.youtube.com/watch?v=GhHOjC4oxh8>.

- 
- [10:4] Ausiello, G., Crescenzi, P., Gambosi, G., Kann, V., Marchetti-Spaccamela, A., and Protazi, M. "Compendium of NP optimization problems." 1999. <http://www.csc.kth.se/~viggo/wwwcompendium/>.
- [10:5] Eiben, A., Smith, J.E., "2 What is an Evolutionary Algorithm?" *Introduction to Evolutionary Computing*. Springer. 2003.
- [10:6] Murphy, K. "16.6 Ensemble learning." *Machine Learning: A Probabilistic Perspective*. The MIT Press. 2012.
- [10:7] Holland, J. "6 Reproductive Plans and Genetic Operators." *Adaptation in Natural and Artificial Systems: An Introductory Analysis with Application to Biology, Control and Artificial Intelligence*. The MIT Press. 1992.
- [10:8] Obitko, M. "Tutorial IX Selection." *Introduction to Genetic Algorithms*. <http://www.obitko.com/tutorials/genetic-algorithms/selection.php>.
- [10:9] Goodman, E. D. (Michigan State University). "Scaling of Relative Fitness." *Introduction to Genetic Algorithms*. 2009. World Summit on Genetic and Evolutionary Computation, Shanghai. [http://www.egr.msu.edu/~goodman/GECSummitIntroToGA\\_Tutorial-goodman.pdf](http://www.egr.msu.edu/~goodman/GECSummitIntroToGA_Tutorial-goodman.pdf).
- [10:10] "The Lotka-Volterra equation." Wikipedia, the free encyclopedia. Wikimedia Foundation. [http://en.wikipedia.org/wiki/Lotka-Volterra\\_equation](http://en.wikipedia.org/wiki/Lotka-Volterra_equation).
- [10:11] Jin, Y. (Honda Research Institute Europe). "A Comprehensive Survey of Fitness Approximation in Evolutionary Computation." 2003. <http://epubs.surrey.ac.uk/7610/2/SC2005.pdf>.
- [10:12] Bonde, G., Khaled, R. "Stock price prediction using genetic algorithms and evolution strategies." *Institute of Artificial Intelligence, University of Georgia*. <http://worldcomp-proceedings.com/proc/p2012/GEM4716.pdf>.

## Chapter 11, Reinforcement Learning

- [11:1] Sutton, R. S., Barto, A. *Reinforcement Learning: An introduction*. The MIT Press. 1998.
- [11:2] Veloso, M. "Reinforcement Learning and Plan Recognition." *Computer Science Department, Carnegie Mellon University*. 2001. <http://www.cs.cmu.edu/~reids/planning/handouts/RL-HMM.pdf>.
- [11:3] Precup, D. *Reinforcement Learning: A Brief Tutorial Reasoning and Learning Lab, McGill University*. 2005. <http://www.iro.umontreal.ca/~lisa/seminaires/14-09-2005.pdf>.

[11:4] Odersky, M., Spoon, L., and Venners, B. "18 Stateful Objects." *Programming in Scala*. 2nd Edition. Artima. 2008.

[11:5] Horstmann, C. "15.6 Annotations for Optimizations." *Scala for the Impatient*. Addison Wesley. 2012.

[11:6] Bertoluzzo, F. and Corazza, M. "Reinforcement Learning for automatic financial trading: Introduction and some applications." Ca'Foscari University of Venice. 2012. [http://www.unive.it/media/allegato/DIP/Economia/Working\\_papers/Working\\_papers\\_2012/WP\\_DSE\\_bertoluzzo\\_corazza\\_33\\_12.pdf](http://www.unive.it/media/allegato/DIP/Economia/Working_papers/Working_papers_2012/WP_DSE_bertoluzzo_corazza_33_12.pdf).

[11:7] "The Options Institute tutorial Chicago Board of Options Exchange." <http://www.cboe.com/LearnCenter/Tutorials.aspx#basics>.

[11:8] "Black-Scholes model." Wikipedia, the free encyclopedia. Wikimedia Foundation. [http://en.wikipedia.org/wiki/Black-Scholes\\_model](http://en.wikipedia.org/wiki/Black-Scholes_model).

[11:9] Konidaris, G., Osentoski, S., and Thomas, P. "Value Function Approximation in Reinforcement Learning using the Fourier Basis." <http://lis.csail.mit.edu/pubs/konidaris-aaai11a.pdf>.

[11:10] Holland, J. "A mathematical framework for studying learning in classifier systems." *Physica D*. Volume 2, Issue 1 - 3. 1986.

[11:11] Bacardit, J. and Krasnogor, N. "Introduction to Learning Classifier Systems." Tutorial G53. Bioinformatics University of Nottingham. <http://www.exa.unicen.edu.ar/escuelapav/cursos/bio/17.pdf>.

[11:12] Lanzi, P. L. "Learning Classifier Systems: A Gentle Introduction." Politecnico Di Milano GECCO. 2014. <http://www.slideshare.net/pierluca.lanzi/gecco2014-learning-classifier-systems-a-gentle-introduction>.

[11:13] Chauhan, A. *Automated Stock Trading and Portfolio Optimization Using XCS Trader and Technical Analysis*. Schools of Informatics. University of Edinburgh. 2008. <http://www.inf.ed.ac.uk/publications/thesis/online/IM080575.pdf>.

## Chapter 12, Scalable Frameworks

[12:1] Prokopec, A., Miller, H. "Parallel Collections: Overview." Scala Documentation. <http://docs.scala-lang.org/overviews/parallel-collections/overview.html>.

[12:2] Prokopec, A., Miller, H. Parallel Collections: Measuring Performance, Scala Documentation. <http://docs.scala-lang.org/overviews/parallel-collections/performance.html>.

- 
- [12:3] Berezniysky, D. "The Actor Model: Towards Better Concurrency." Java Edge. 2009. <http://www.slideshare.net/drorbr/the-actor-model-towards-better-concurrency>.
- [12:4] Horstmann, C. "14.17 Partial Functions." *Scala for the Impatient*. Addison Wesley. 2012.
- [12:5] Odersky, M., Spoon, L., and Venners, B. "30.3 Treating native threads as actors." *Programming in Scala: A Comprehensive step-by-step guide*. 2nd edition. Artima. 2008.
- [12:6] Maier, I., Rompf, T., Odersky, M. "Deprecating the Observer Pattern." Ecole Polytechnique Federale de Lausanne. <http://lampwww.epfl.ch/~imaier/pub/DeprecatingObserversTR2010.pdf>.
- [12:7] Boner, J. "Introducing Akka." Typesafe. 2012. <http://www.slideshare.net/jboner/introducing-akka>.
- [12:8] Gupta, M. K. "4 Typed Actors." *Akka Essentials*. Packt Publishing. 2012.
- [12:9] Gupta, M. K. "6 Supervision and Monitoring: Supervision." *Akka Essentials*. Packt Publishing. 2012.
- [12:10] "Concurrent Programming with Futures." Finagle. Twitter Inc. 2004. [twitter.github.io/finagle/guide/Futures.html](http://twitter.github.io/finagle/guide/Futures.html).
- [12:11] "Apache Spark: lightning-fast cluster computing." The Apache Software Foundation. 2014. <http://spark.apache.org>.
- [12:12] Wendell, P. "The Future of Apache Spark. DataBrick." 2014. Spark Summit. <http://spark-summit.org/wp-content/uploads/2014/07/Future-of-Spark-Patrick-Wendell.pdf>.
- [12:13] Zaharia, M. "Spark in Action: Fast Big Data Analytics using Scala." Scala Days. 2012. <http://www.slideshare.net/jamesskillsmatter/zaharia-sparkscaladays2012>.
- [12:14] "First steps with Spark." The Apache Software Foundation. 2014. <http://spark.apache.org/screencasts/1-first-steps-with-spark.html>.
- [12:15] Apache Spark community mailing list: [dev@spark.apache.org](mailto:dev@spark.apache.org). List of Spark related meetups: <http://spark.meetup.com>.
- [12:16] Ambati, S. "Sparking water = H2O + Spark." 0xData. 2014. <http://databricks.com/blog/2014/06/30/sparkling-water-h2o-spark.html>.
- [12:17] H2O Developer Cookbook. 0xData. 2014 [http://docs.0xdata.com/developuser/developer\\_cookbook.html](http://docs.0xdata.com/developuser/developer_cookbook.html).

