Appendix D — Bibliography

The bibliography is intended to be practical rather than encyclopedic. I have listed books and websites that I have found provide background and examples that are helpful in learning about and implementing trading systems with the characteristics that have high probability of being profitable with low risk.

This list is heavy in machine learning, pattern recognition, probability, statistics, modeling, and simulation—because those topics are of primary importance in developing quantitative trading systems. It is light on traditional trading systems, indicators, and charting—because those topics are not very useful for systems that fit the trading profile most likely to be profitable with low risk.

If you can only read one

Kahneman, Daniel, *Thinking, Fast and Slow*, Farrar, Straus, and Giroux, 2011.

But you will need more than one

Abu-Mostafa, Yaser, Malik Magdon-Ismail, and Hsuan-Tien Lin, *Learning from Data*, AML Books, 2012.

—, *Machine Learning*, California Institute of Technology, online course. `https://work.caltech.edu/`

Aronson, David, and Timothy Masters, *Statistically Sound Machine Learning for Algorithmic Trading of Financial Instruments: Developing Predictive-Model-Based Trading Systems Using TSSB*, Aronson, 2013.

Bandy, Howard, *Introduction to AmiBroker: Advanced Technical Analysis Software for Charting and Trading System Development*, Second Edition, Blue Owl Press, 2012. `http://www.introductiontoamibroker.com/`

—, *Mean Reversion Trading Systems: Practical Methods for Swing Trading*, Blue Owl Press, 2013.

—, *Modeling Trading System Performance: Monte Carlo Simulation, Position Sizing, Risk Management, and Statistics*, Blue Owl Press, 2011.

—, *Quantitative Technical Analysis: An integrated approach to trading system development and trading management*, Blue Owl Press, 2015.

—, *Quantitative Trading Systems: Practical Methods for Design, Testing, and Validation*, Second Edition, Blue Owl Press, 2011.

—, *The Importance of Being Stationary*, YouTube Video, 2015,
`https://www.youtube.com/watch?v=iBhrZKErJ6A&feature=youtu.be`

—, *The Four Faces of Risk*, YouTube Video, 2015,
`https://www.youtube.com/watch?v=Vw7mseQ_Tmc&feature=youtu.be`

—, *Trading System Development: Indicator-Based*, YouTube Video, 2015,
`https://www.youtube.com/watch?v=W-gGssqHORJE&feature=youtu.be`

—, *Trading System Development: Machine Learning*, YouTube Video, 2015,
`https://www.youtube.com/watch?v=v729evhMpYk&feature=youtu.be`

Bishop, Christopher, *Pattern Recognition and Machine Learning*, Springer, 2007.

—, *Introduction to Bayesian Inference*, video lecture.
`http://videolectures.net/mlss09uk_bishop_ibi/`

Bostrom, Nick, *Superintelligence: Paths, Dangers, Strategies*, Oxford, 2014.

Box, George, and Friends, *Improving Almost Anything: Ideas and Essays*, Revised Edition, Wiley, 2006.

Bressert, Eli, *SciPy and NumPy: An Overview for Developers*, O'Reilly, 2013.

Brownlee, Jason, *Clever Algorithms: Nature-Inspired Programming Recipes*, Brownlee, 2012.

Connors, Larry, and Cesar Alvarez, *High Probability ETF Trading: 7 Professional Strategies to Improve Your ETF Trading*, Connors, 2009.

—, *How Markets Really Work: A Quantitative Guide to Stock Market Behavior*, Second Edition, Bloomberg, 2012.

Cormen, Thomas, Charles Leiserson, Ronald Rivest, and Clifford Stein, *Introduction to Algorithms*, 3rd Edition, MIT, 2009.

de Freitas, Nando, Machine Learning and Data Mining, University of British Columbia, video lectures.
`http://www.cs.ubc.ca/~nando/340-2012/`

Domingos, Pedro, *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World*, Basic Books, 2015.

Downey, Allen, *Think Bayes*, O'Reilly, 2013.

—, *Think Python*, O'Reilly, 2012.

—, *Think Stats*, O'Reilly, 2011.

Easley, David, and Jon Kleinberg, *Networks, Crowds, and Markets*, Cambridge, 2010.

Fisher, Len, *The Perfect Swarm: The Science of Complexity in Everyday Life*, Basic, 2009.

Flach, Peter, *Machine Learning: The Art and Science of Algorithms that Make Sense of Data*, Cambridge, 2012.

Foreman, John, *Data Smart: Using Data Science to Transform Information into Insight*, Wiley, 2013.

Garreta, Raul, and Guillermo Moncechi, *Learning scikit-learn: Machine Learning in Python*, Packt, 2013.

Gigerenzer, Gerd, *Calculated Risks: How to Know When Numbers Deceive You*, Simon & Schuster, 2003.

Gutierrez-Osuna, Ricardo, Texas A&M University, *Lecture 13: Validation*.
`http://research.cs.tamu.edu/prism/lectures/iss/iss_l13.pdf`

Haigh, John, *Taking Chances: Winning with Probability*, Oxford, 2003.

Harrington, Peter, *Machine Learning in Action*, Manning, 2012.

Hastie, Trevor, Robert Tibshirani, and Jerome Friedman, *The Elements of Statistical Learning: Data Mining, Inference, and Prediction*, Second Edition, Springer, 2011.

Hetland, Magnus Lie, *Python Algorithms: Mastering Basic Algorithms in the Python Language*, Second Edition, Apress - Springer, 2014.

Hubbard, Douglas, *How to Measure Anything: Finding the Value of Intangibles in Business*, Wiley, 2014.

Japkowicz, Nathalie, and Mohak Shah, *Evaluating Learning Algorithms: A Classification Perspective*, Cambridge, 2011.

Koller, Daphne, and Nir Friedman, *Probabilistic Graphical Models: Principles and Techniques*, MIT, 2009.

—, *Probabilistic Graphical Models*, Stanford University, Coursera online course.
`https://www.coursera.org/course/pgm`

Kruschke, John, *Doing Bayesian Analysis, Second Edition*, Academic Press, 2014.

Marsland, Stephen, *Machine Learning: An Algorithm Perspective*, CRC, 2009.

Mauboussin, Michael, *More Than You Know: Finding Financial Wisdom in Unconventional Places*, Columbia, 2007.

—, *The Success Equation: Untangling Skill and Luck in Business, Sports, and Investing*, Harvard, 2012.

McGrayne, Sharon Bertsch, *The Theory that Would Not Die: How Bayes Rule Cracked the Enigma Code, Hunted Down Russian Submarines, and Emerged Triumphant from Two Centuries of Controversy*, Yale, 2011.

McKinney, Wes, *Python for Data Analysis: Data Wrangling with Pandas, NumPy, and iPython*, O'Reilly, 2012.

Miller, Thomas, *Modeling Techniques in Predictive Analytics: Business Problems and Solutions with R*, Pearson, 2013.

Miner, Gary, Robert Nisbet, and John Elder, *Handbook of Statistical Analysis and Data Mining Applications*, Academic Press, 2009.

Moore, Andrew, Carnegie Mellon University, *Cross-validation for detecting and preventing overfitting*.
`https://www.autonlab.org/tutorials/overfit10.pdf`

Murphy, Kevin, *Machine Learning: A Probabilistic Perspective*, MIT Press, 2012.

Ng, Andrew, *Machine Learning*, Stanford University Open Course.
`http://openclassroom.stanford.edu/MainFolder/`
`CoursePage.php?course=MachineLearning`

Nisbet, Robert, John Elder, and Gary Miner, *Handbook of Statistical Analysis and Data Mining Applications*, Academic Press, 2009.

Pearl, Judea, *Causality: Models, Reasoning, and Inference*, Second Edition, Cambridge, 2009.

Peta, Joe, *Trading Bases: How a Wall Street Trader Made a Fortune Betting on Baseball*, New American Library, 2013.

Pratt, John, Howard Raiffa, and Robert Schlaifer, *Introduction to Statistical Decision Theory*, MIT, 1995.

Provost, Foster, and Tom Fawcett, *Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking*, O'Reilly, 2013.

Pyle, Dorian, *Data Preparation for Data Mining*, Morgan Kaufmann, 1999.

Raschka, Sebastian, *Python Machine Learning*, Packt, 2015.

—, *Terms in Data Science Defined in One Paragraph*, 2014,
https://github.com/rasbt/pattern_classification/blob/
master/resources/data_glossary.md

Rhoades, Russell, *Trading VIX Derivatives: Trading and Hedging
Strategies Using VIX Futures, Options, and Exchange Traded
Notes*, Wiley, 2011.

Richert, Willi, and Luis Pedro Coelho, *Building Machine Learning
Systems with Python*, Packt, 2013.

Russell, Stuart, and Peter Norvig, *Artificial Intelligence: A Modern
Approach*, Pearson, 2010.

Schapire, Robert, and Yoav Freund, *Boosting: Foundations and
Algorithms*, MIT, 2014.

Schutt, Rachell, and Cathy O'Neill, *Doing Data Science: Straight Talk
from the Frontline*, O'Reilly, 2014.

Sedgewick, Robert, and Kevin Wayne, *Algorithms*, 4th Edition,
Addison-Wesley, 2011.

Segaran, Toby, *Programming Collective Intelligence: Building Smart Web
2.0 Applications*, O'Reilly, 2007.

Siegel, Eric, and Thomas Davenport, *Predictive Analytics: The Power to
Predict Who Will Click, Buy, Lie, or Die*, Wiley, 2013.

Silver, Nate, *The Signal and the Noise: Why So Many Predictions Fail -
But Some Don't*,Penguin, 2012.

Steiner, Christopher, *Automate This: How Algorithms Came to Rule Our
World*, Portfolio / Penguin, 2012.

Stone, James, *Bayes Rule: A Tutorial Introduction to Bayesian Analysis*,
Sebtel, 2013.

Surowiecki, James, *The Wisdom of Crowds*, Random House, 2004.

Tan, Pang-Ning, Michael Steinbach, and Vipin Kumar, *Introduction to
Data Mining*, Pearson, 2005.

Tetlock, Philip, and Dan Gardner, *Superforecasting: The Art and Science
of Prediction*, Crown, 2015.

Vorhies, William, CRISP-DM—A Standard Methodology to Ensure a
Good Outcome.
http://www.datasciencecentral.com/profiles/blogs/
crisp-dm-a-standard-methodology-to-ensure-a-good-
outcome

Watts, Duncan, *Everything is Obvious: How Common Sense Fails Us*,
Crown, 2011.

Weisberg, Herbert, *Willful Ignorance: The Mismeasure of Uncertainty*, Wiley, 2014.

Wilson, Greg, et al, *Best Practices for Scientific Computing*, Cornell University, 2012.
`http://arxiv.org/pdf/1210.0530v4.pdf`

Winston, Patrick, *Artificial Intelligence*, MIT Open Courseware.
`http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-034-artificial-intelligence-fall-2010/`

Witten, Ian, Eibe Frank, and Mark Hall, *Data Mining: Practical Machine Learning Tools and Techniques*, Third Edition, Morgan Kaufmann, 2011.