

RESISTANCE IS FUTILE (THAT IS, IF YOU ARE INTERESTED...)

- There is a lot more to it
- Math Required™:
 - Calculus (for optimization, especially Lagrange multipliers and related topics)
 - Linear algebra (especially matrix algebra & applications)
“Finite Dimensional Vector Spaces”, Halmos
“Linear Algebra Done Right”, Axler
<http://ocw.mit.edu/courses/mathematics/18-06-linear-algebra-spring-2010/>
 - Statistics & probability theory (distributions, sufficient statistics, etc.)
e.g. “All of Statistics”, Wasserman, Springer 2010
- Andrew Ng’s introductory ML course:
<https://www.coursera.org/course/ml>
- Alex Smola’s (CMU) online course
<https://alex.smola.org/teaching/cmu2013-10-71/>
- Abu Moustafa’s (Caltech) online course
<https://work.caltech.edu/telecourse.html>
- Some texts:
 - High quality advice from a very clever practitioner:
“A Few Useful Things to Know about Machine Learning”, Domingos; CACM 2012
 - Big picture, excellent but a bit dated (and incomplete):
“Information Theory, Inference and Learning Algorithms”, MacKay; Cambridge 2003
 - Current, thorough, dense; includes overview of math required:
“Machine Learning: a Probabilistic Perspective”, Murphy; MIT Press 2011
- Some convenient data sets:
<http://www.kaggle.com/>