

Prerequisite review

Fraida Fund

This course is mathematically oriented, and undergraduate-level knowledge of probability and linear algebra is a prerequisite. If you need to brush up, here's what you should review:

- [Review of Probability Theory](http://cs229.stanford.edu/section/cs229-prob.pdf) (<http://cs229.stanford.edu/section/cs229-prob.pdf>)
- In [Boyd and Vandenberghe "Introduction to Applied Linear Algebra"](http://vmls-book.stanford.edu/vmls.pdf) (<http://vmls-book.stanford.edu/vmls.pdf>):
 - Section I, Chapter 1 (Vectors): vectors, vector addition, scalar-vector multiplication, inner product (dot product), complexity of vector computations
 - Section I, Chapter 3 (Norm and distance): Norm of a vector, euclidean distance, complexity
 - Section II, Chapter 5 (Matrices): matrix notation, zero and identity matrices, sparse matrices, matrix transposition, matrix addition, scalar-matrix multiplication, matrix norm, matrix-vector multiplication, complexity
 - Section II, Chapter 8 (Linear equations): systems of linear equations
 - Section II, Chapter 10 (Matrix multiplication): matrix-matrix multiplication
 - Section II, Chapter 11 (Matrix inverses): Inverse, solving a system of linear equations
 - Also a quick optimization review: Appendix C (Derivatives and optimization)
 - And a brief introduction to algorithm complexity: Appendix B (Complexity)