CSE 575: Statistical Machine Learning
8/24/2022

Additional References for Prerequisites

Probability

- Probability axioms
- Sum rule, product rule
- Bayes' rule
- Joint, marginal, and conditional probabilities
- Independence
- Discrete random variables and probability mass functions
- Continuous random variables, probability density functions, and cumulative distribution functions
- Expected value and variance

We will review most of the above topics next week in class.

If you would like to study at your own pace, you can check out the first three chapters of "Introduction to Probability", Bertsekas and Tsitsiklis, 2008. (You do not need to master all of those materials to follow the lectures, but we will assume basic familiarity with these topics) For a quick reference material, you can also check out "A First Course in Probability" by Sheldon Ross.

Linear Algebra

- Vector and matrix
- Matrix algebra, products, and inverses
- Linear system of equations
- Linear independence and bases
- Orthogonality
- Inner products, norm, and distance
- Eigenvalues and eigenvectors

Basic familiarity with the above topics in linear algebra (at an undergraduate course level) is assumed. Check out "Linear Algebra with Applications" by Otto Bretscher. I may do quick recaps in class as necessary.