**Probability topics**

**You should know**

probability distributions: joint and marginal, PDF, CDF

independence, conditional independence

variance, covariance, and correlation matrices

expected value of a random variable

multivariate Gaussian

Bayes rule: prior, posterior

**We will cover**

MLE and MAP

Bernoulli and Beta distributions

conjugate prior

EM algorithm

Naive Bayes

Latent Dirichlet Allocation (LDA) - and Dirichlet distribution