

Contents

A lot of notes are copied from Karl

Pt. 1: Statistics

These are mostly definitions you need to memorise.

1. Probability
2. Distributions
3. Gaussian Identities

Pt. 2: Modelling

1. MLE/MAP
2. Linear Regression
3. Kernel Regression
4. Gaussian Process

Pt. 2.5: Advanced Modelling

1. Unsupervised Learning
2. Bayesian Optimisation
3. Evidence and Graphical Models
4. Dirichlet Processes
5. Topic Models
6. Neural Networks
7. Reinforcement Learning

Pt. 3: Inference

This covers three techniques we can use when we have models which are intractable to perform inference in and we want to combine assumptions with data:

1. Laplace Approximation
2. Sampling
3. Variational Inference