# 1 Intuition

1. Outline proof / intuition of representer theorem

2. Outline of theory of boosting

3. Intuition of margin

# 2 Schedule - strategy

1. 2:52 - 4 Practice midterm (2 + review solutions for 1)

2. 4 - 4:30 Prepare offline resources (Dropbox)

3. 4:30 - 5:00 Review recitation / notes

4. 4 - 4:45 Exercise, if possible?

5. 5:00 - 5:30 Go back to Frosoco, get supplies (pencil, lead, pen, paper), power strip, and coffee/food

# 3 Overview of Algorithms

Broad idea of when to use what?

1. GDA

2. SVMs

3. etc.

# 4 Linear Algebra review

1. Look through basic calculation, make this second nature

2. Properties of linear independence / null space / etc.

3. Basic properties of eigenvalues / trace

4. PSD matrix theorems.

# 5 Probability Theory

1. Definition of random variable

2. Definition of expected value, and intuition

3. Probability density function vs. cdf

4. Common distributions, and an intuition for what they mean

5. Hoeffding bounds, intuition!