#### 10-606 Mathematical Foundations for Machine Learning

Machine Learning Department School of Computer Science Carnegie Mellon University





# Vector Derivatives for Linear Least Squares

Matt Gormley Lecture 9 September 25, 2018

### Reminders

- Homework 2: Linear Algebra + Calculus
  - Out: Tue, Sep. 25
  - Due: Tue, Oct. 2 at 11:59pm

## Q&A

### **MATRIX CALCULUS**

## Matrix Calculus: Least Squares

### Chalkboard

- Least Squares Objective Function
- Minimizing in Closed Form
- Necessary Identities
- Computing the Vector Derivative