ECE 6504: Deep Learning for Perception

Topics:

– Backprop in Conv Layers

Dhruv Batra

Virginia Tech
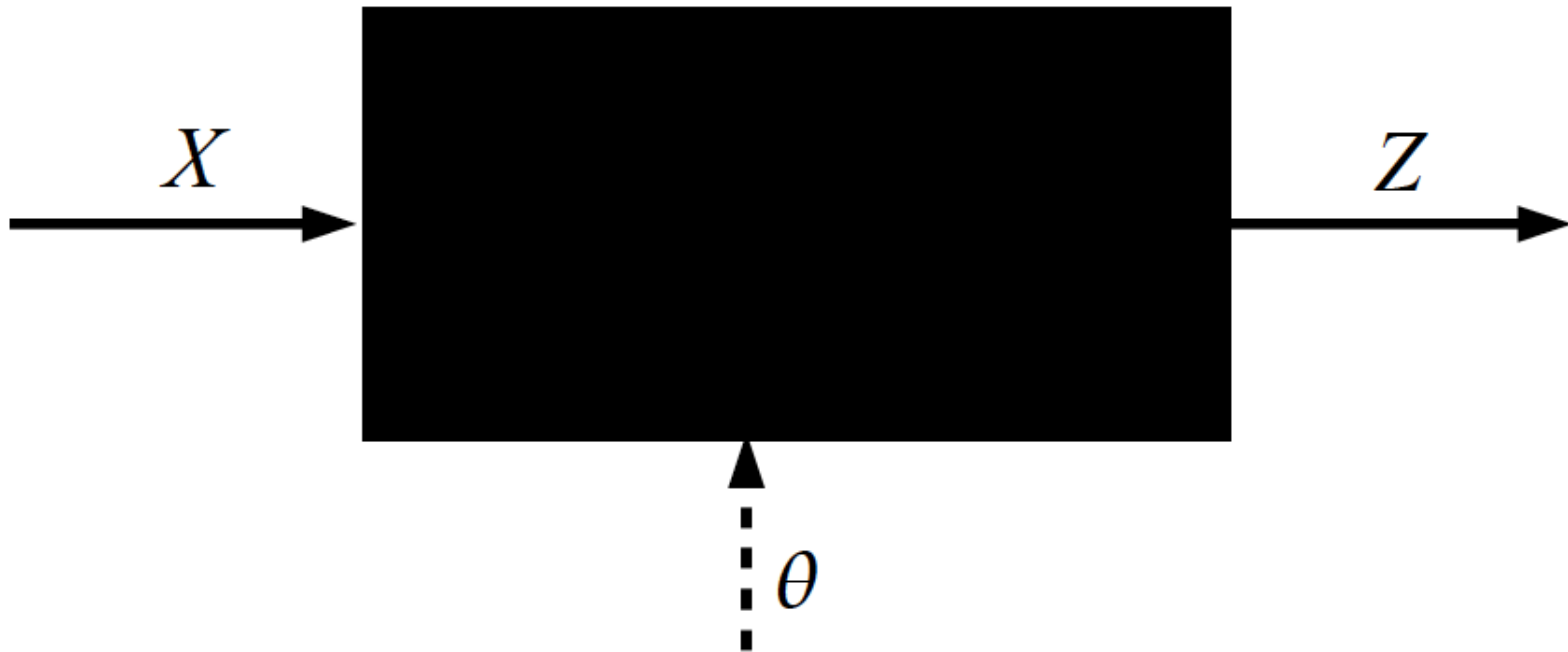
Administrativia

- Presentations
  - https://docs.google.com/spreadsheets/d/1m76E4mC0wfRjc4HRBWFdAlXKPIzlEwfw1-u7rBw9TJ8/edit#gid=2045905312

- HW1
  - Out today
  - Due in 2 weeks
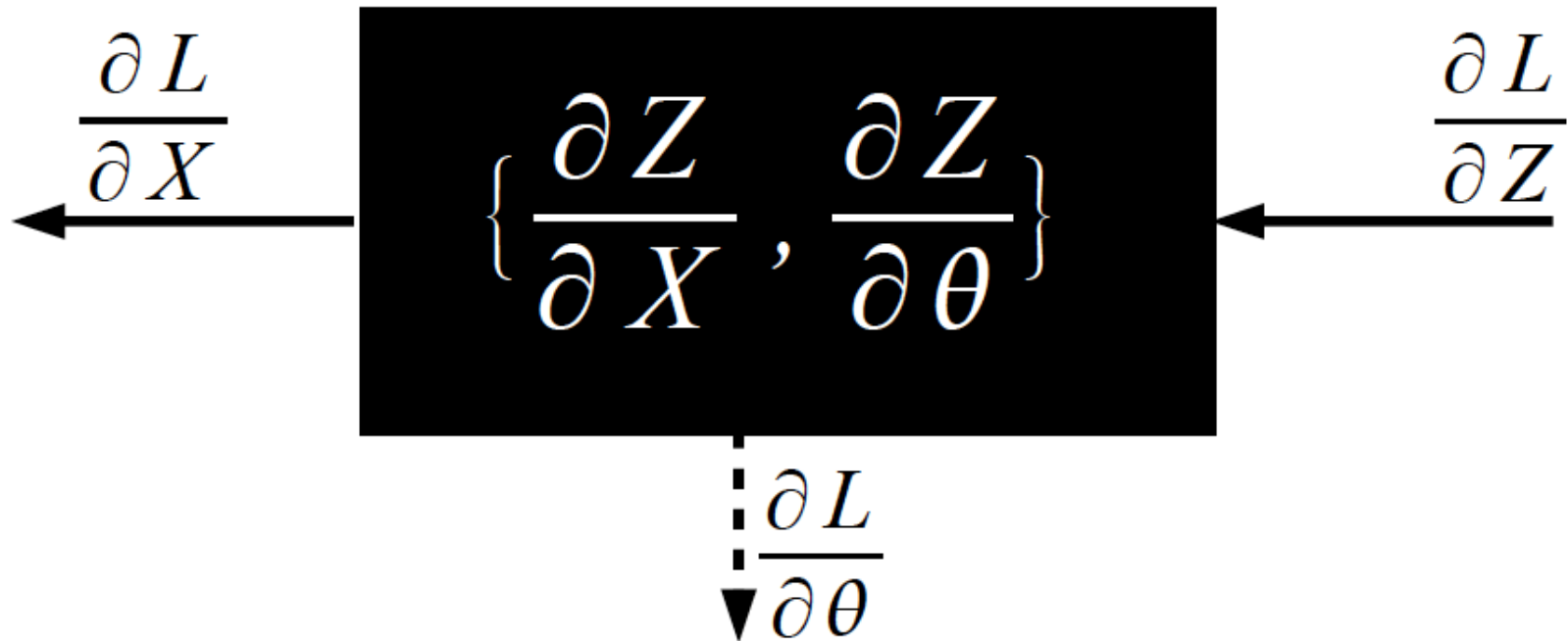 - Please please please please please start early
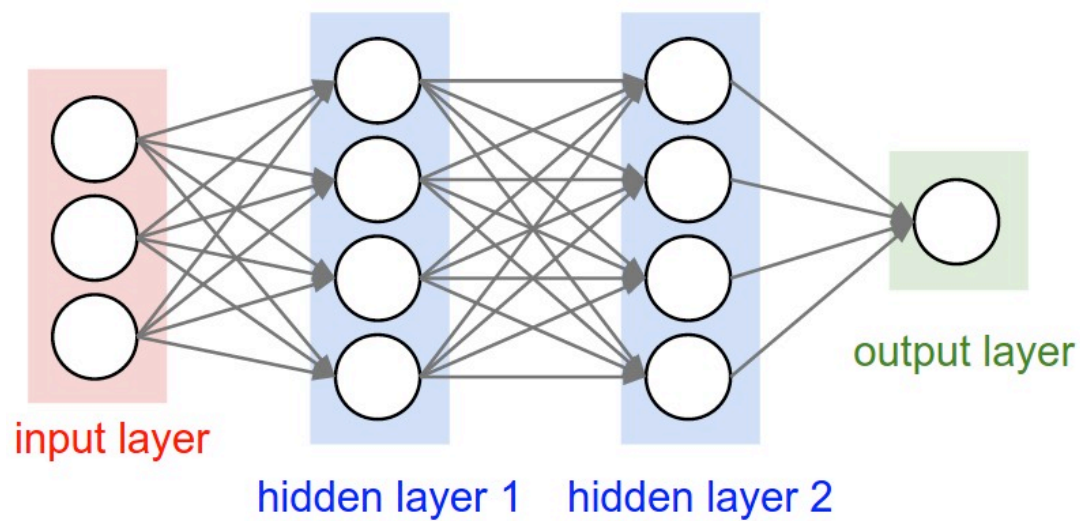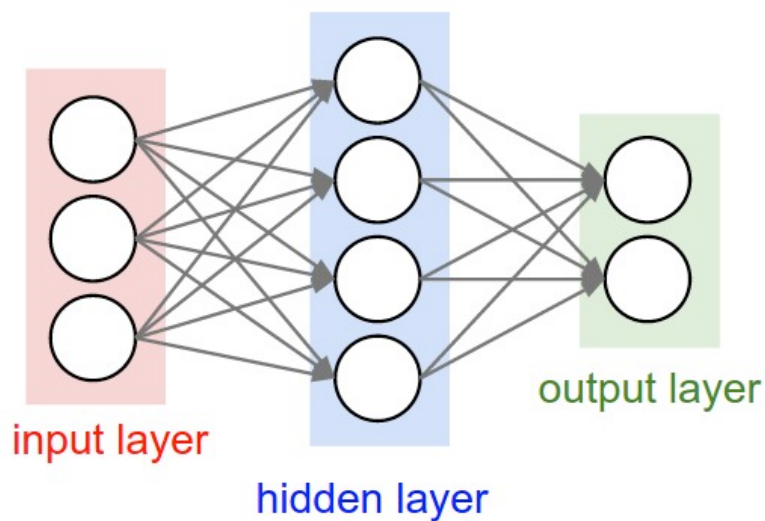 - https://computing.ece.vt.edu/~f15ece6504/homework1/

Recap of last time

Key Computation: Forward-Prop
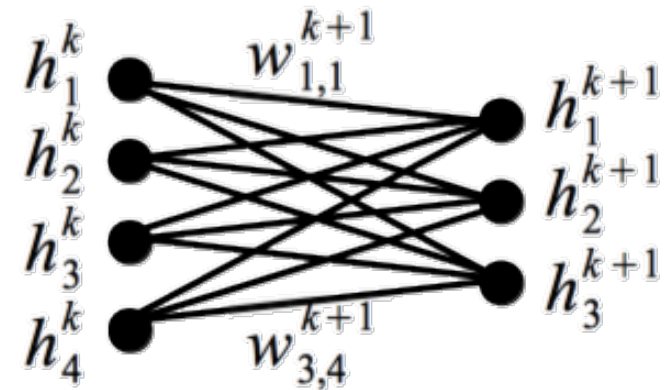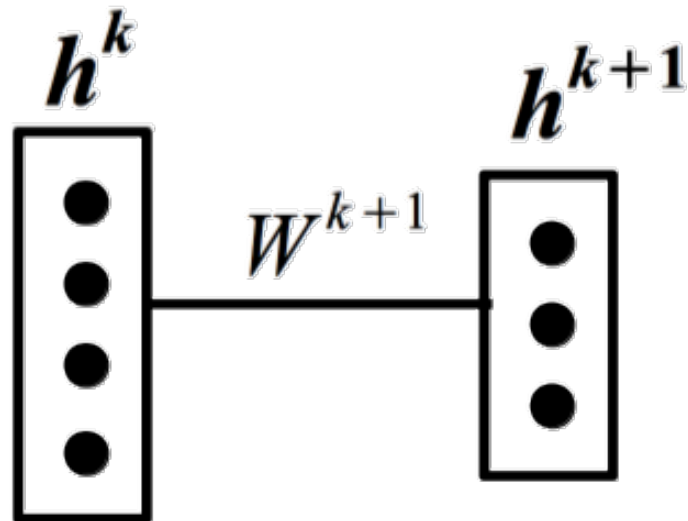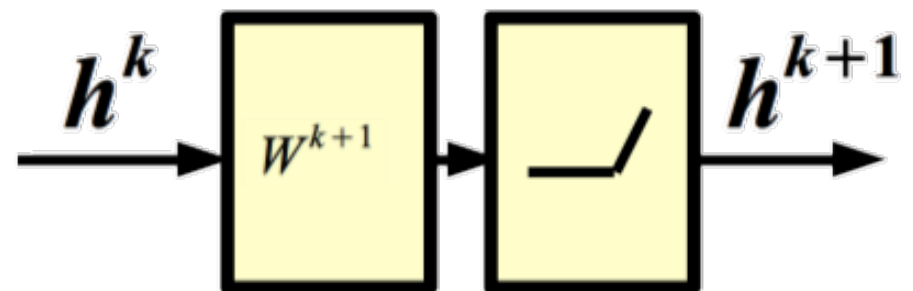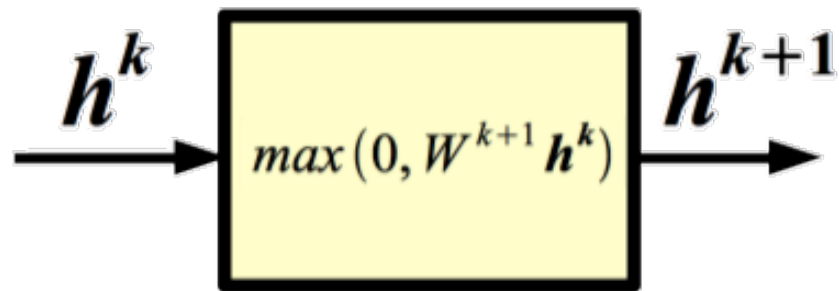
Key Computation: Back-Prop

Multilayer Networks

- Cascade Neurons together
- The output from one layer is the input to the next
- Each Layer has its own sets of weights

Image Credit: Andrej Karpathy, CS231n

Equivalent Representations

Plan for Today

- ## CNNs
  - ## Backward pass
    - Partial derivation on board
    - Full derivation in class