CS 760: Machine Learning

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## Convolutional Neural Networks

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## **DO NOT POLLUTE!** AVOID PRINTING, OR PRINT 2-SIDED MULTIPAGE.

- 1 Introduction
- 2 Why Do We Care?
- 3 But What is a Convolution?

The Discrete Case

The Continuous Case

- 4 Structure
- 5 Examples
  - (a) TODO
  - (b) TODO

## 6 Resources

- [1] 3Blue1Brown But What is a Convolution? https://www.youtube.com/watch?v=KuXjwB4LzSA&t=1s
- [2] 3Blue1Brown Convolutions Why X+Y in probability is a beautiful mess https://www.youtube.com/watch?v=IaSGqQa50-M
- [3] far1din Convolutional Neural Networks from Scratch In Depth https://www.youtube.com/watch?v=jDe5BAsT2-Y