1. **What is a CNN**
   1. Neural network for data with grid-like topology (an image)
   2. Learns representations (features or **filters**) directly from data
   3. Heavily borrows ideas from neuroscience of vision
   4. Introduces new operations called **convolution** and **pooling**
   5. Utilizes a **rectified linear unit** as activation function
   6. Leverages three important ideas: **sparse interactions**, **parameter sharing**, and **equivariant representations**
   7. Trained using variants of backprop