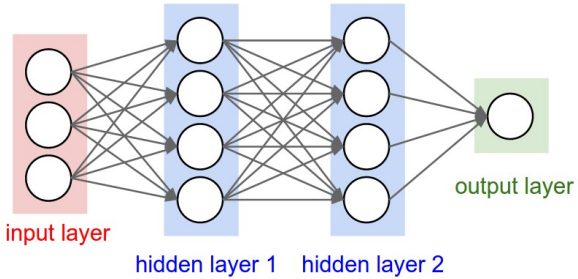
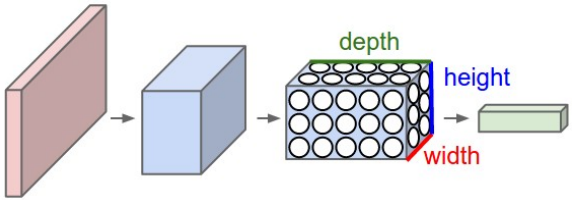
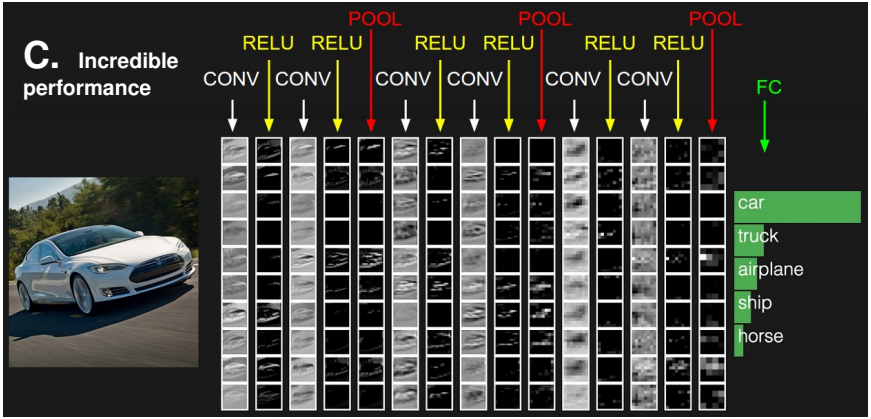
A. Classical Architecture (fully connected)



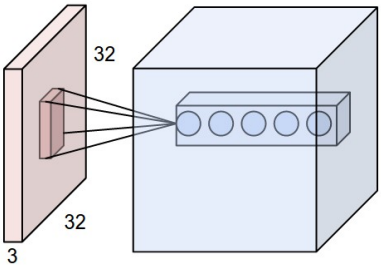
B. Convolutional NN Architecture
(Modified "physics-aware" connectivity
to target image data)



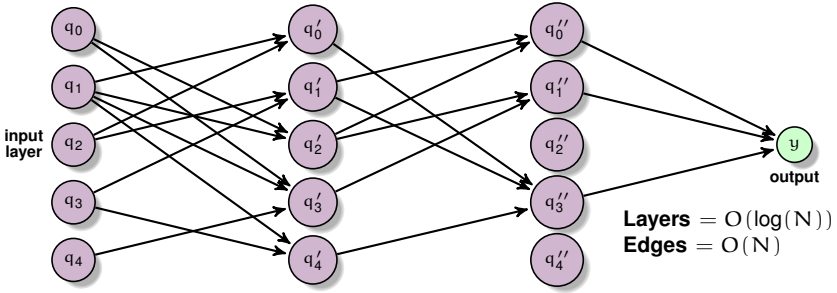
C. Incredible performance



Covolutional filters use domain knowledge that nearby pixles are related



D. "Physics-aware" Squeezenet with pruned structure



- (1) Automatically finds and exploits variable relationships.
- (2) Bakes in prior knowledge in network structure.
- The "Squeezing" algorithm discovers which varaibles "go together", and prune the network structure, thus boosting performance in realistic data starved scenarios