

# Fundamentals of Deep Learning

Part 5: Pre-trained Models

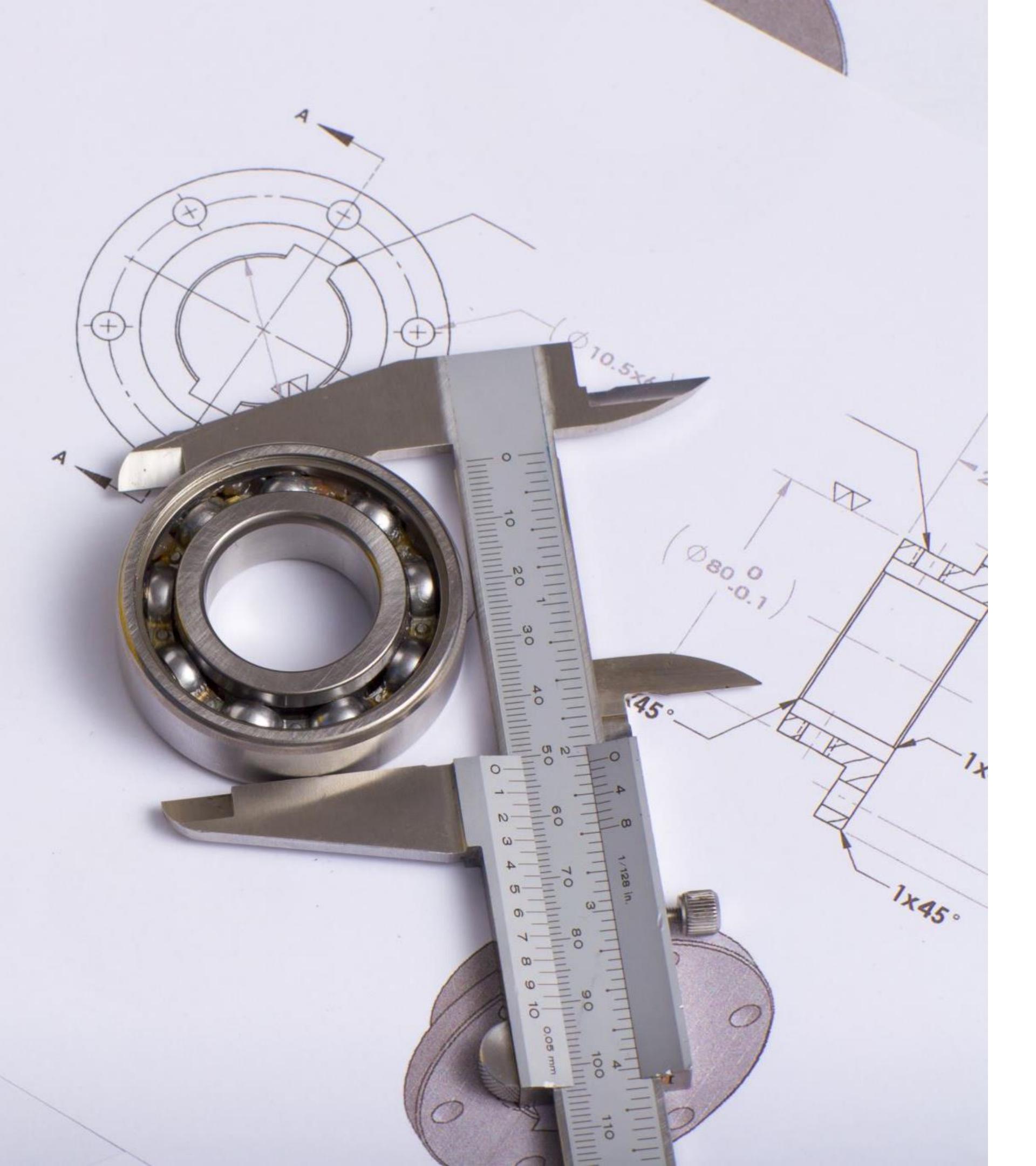


## Agenda

- Part 1: An Introduction to Deep Learning
- Part 2: How a Neural Network Trains
- Part 3: Convolutional Neural Networks
- Part 4: Data Augmentation and Deployment
- Part 5: Pre-Trained Models
- Part 6: Advanced Architectures







### Review So Far

- Learning Rate
- Number of Layers
- Neurons per Layer
- Activation Functions
- Dropout
- Data





#### **Pre-Trained Models**





## PYIORCH HUB



#### **Pre-Trained Models**

## VERY DEEP CONVOLUTIONAL NETWORKS FOR LARGE-SCALE IMAGE RECOGNITION

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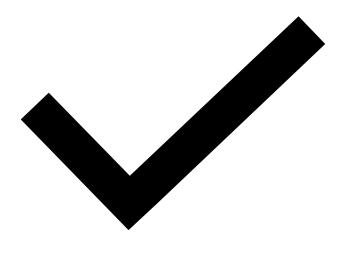




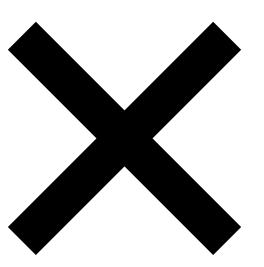
## The Next Challenge

An Automated Doggy Door









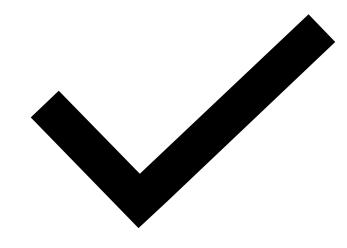




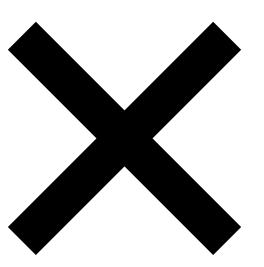
## The Challenge After

An Automated Presidential Doggy Door





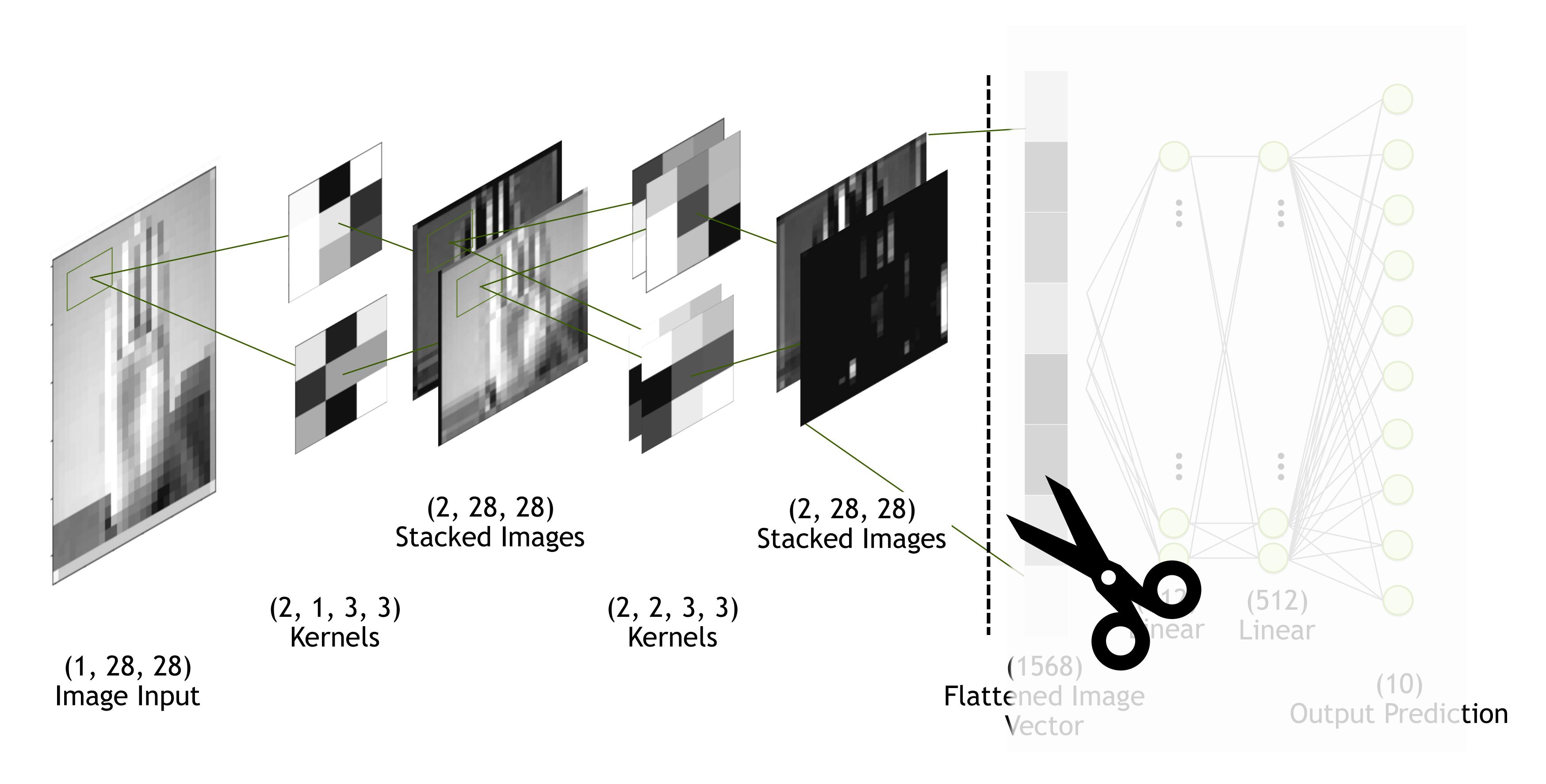




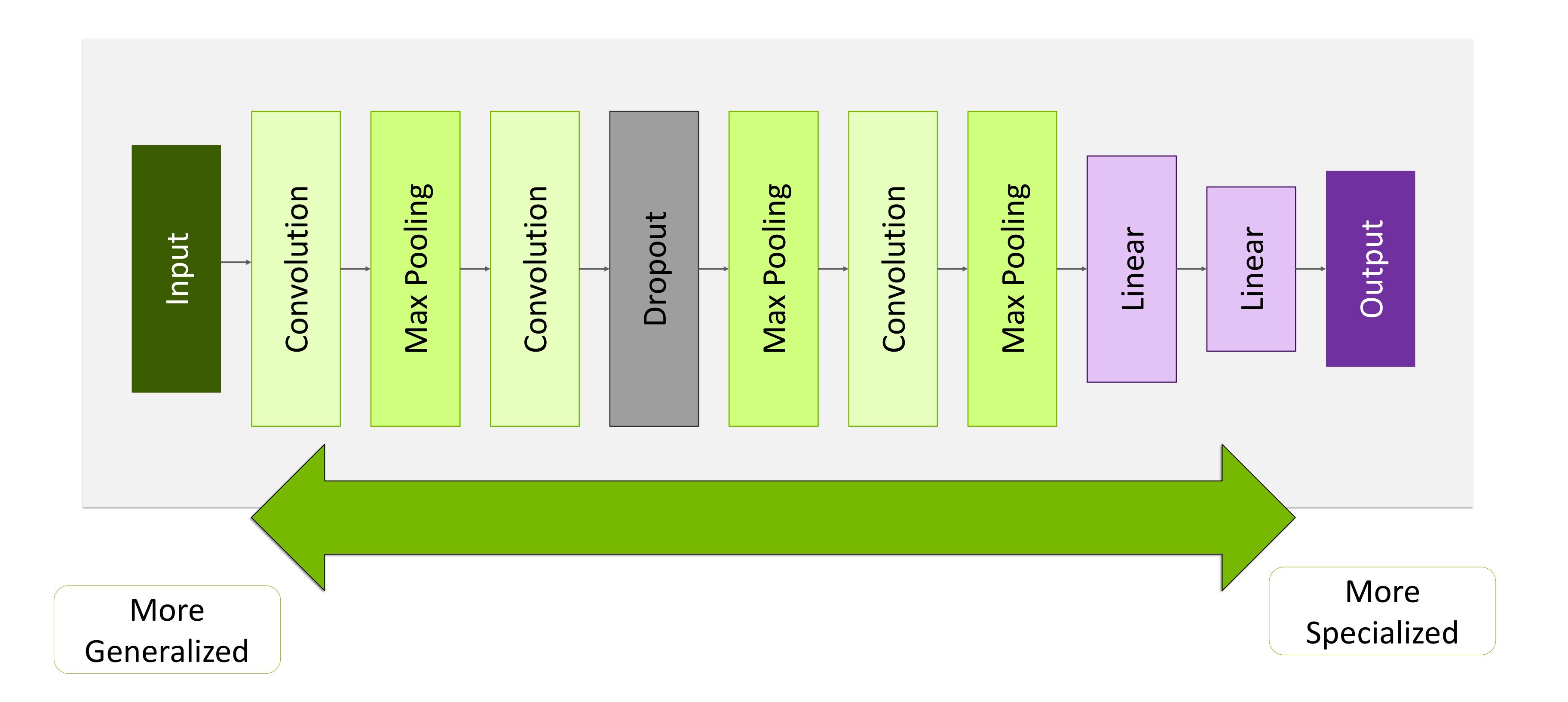












Freezing the Model?





