



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

Review So Far

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



Pre-Trained Models

Pre-Trained Models

TensorFlow Hub



PYTORCH
HUB

Pre-Trained Models

VERY DEEP CONVOLUTIONAL NETWORKS FOR LARGE-SCALE IMAGE RECOGNITION

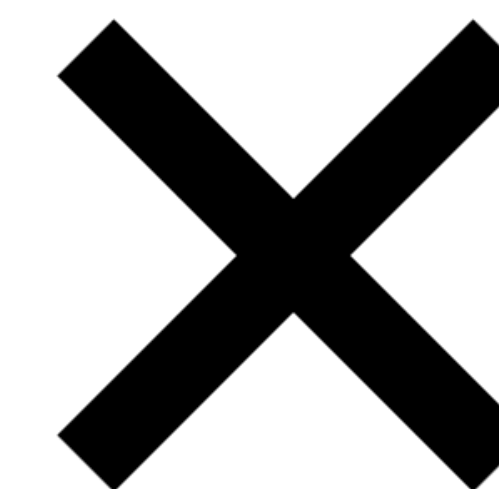
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IMGENET

The Next Challenge

An Automated Doggy Door

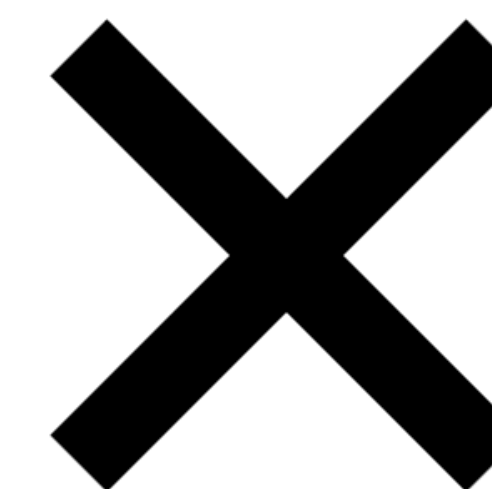




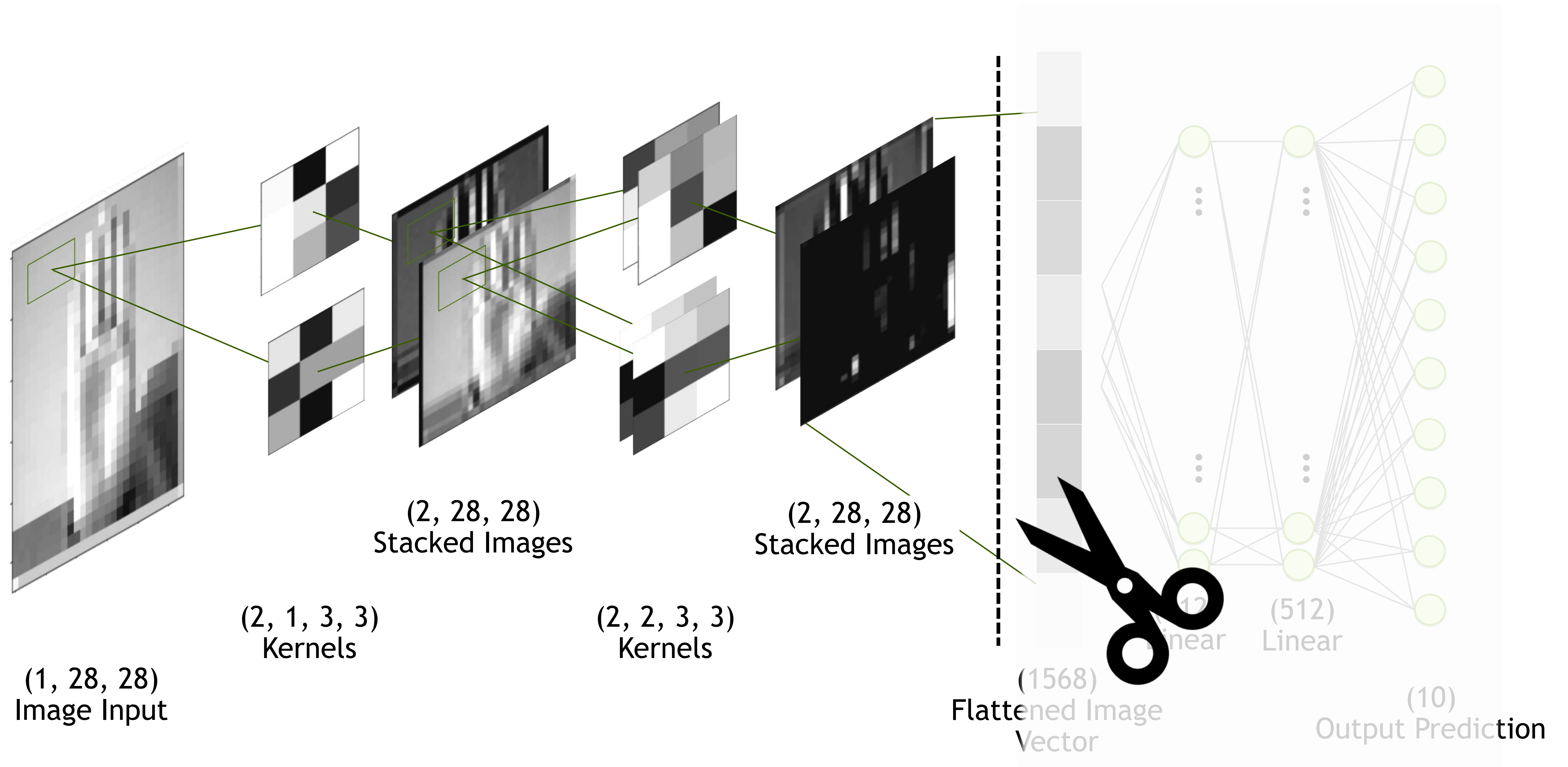
Transfer Learning

The Challenge After

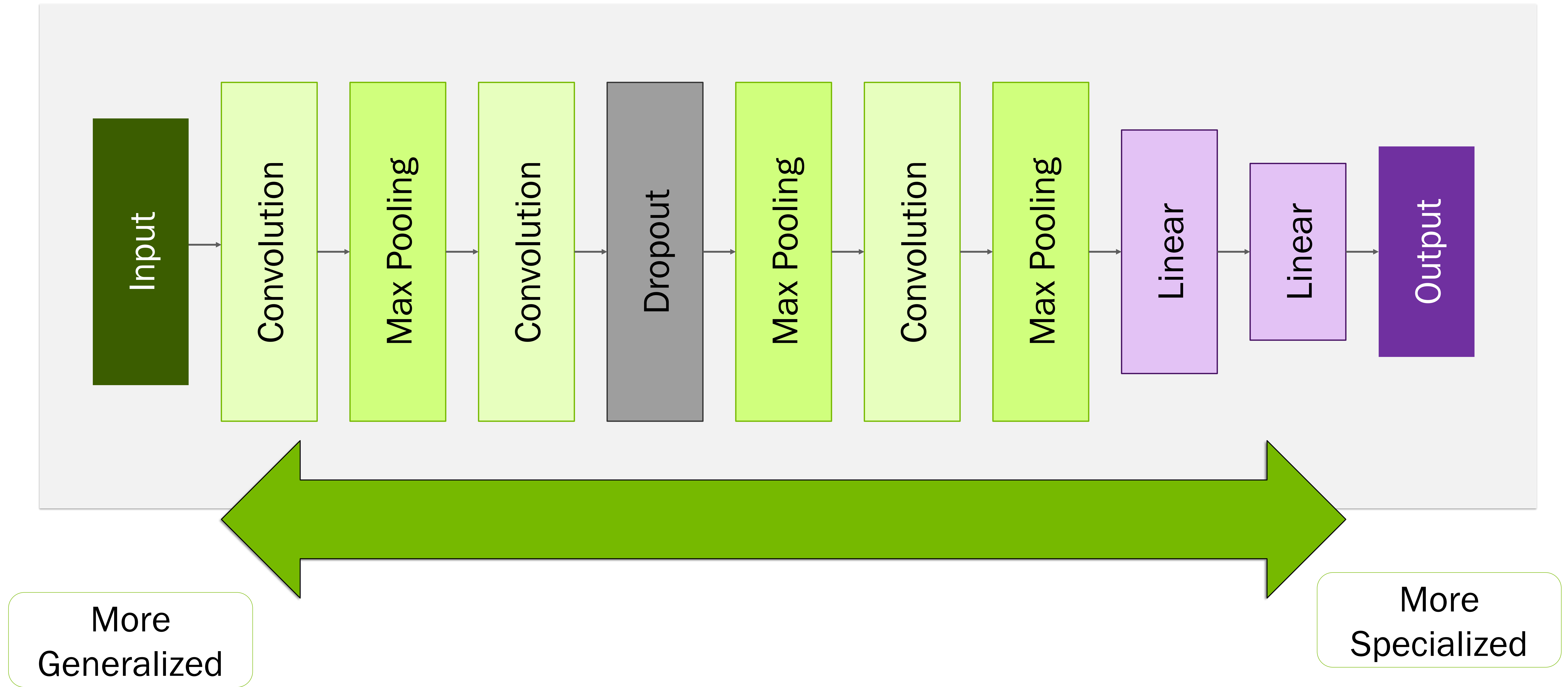
An Automated Presidential Doggy Door



Transfer Learning



Transfer Learning



Transfer Learning

Freezing the Model?



Transfer Learning





Let's Get Started!

