

Vizualizácia neurónových sieti

TensorFlow Playground



Iterations
000,349

Learning rate
0.03

Activation
Tanh

Regularization
None

Regularization rate
0

Problem type
Classification

DATA

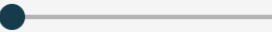
Which dataset do you want to use?



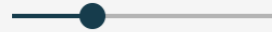
Ratio of training to test data: 50%



Noise: 0



Batch size: 10



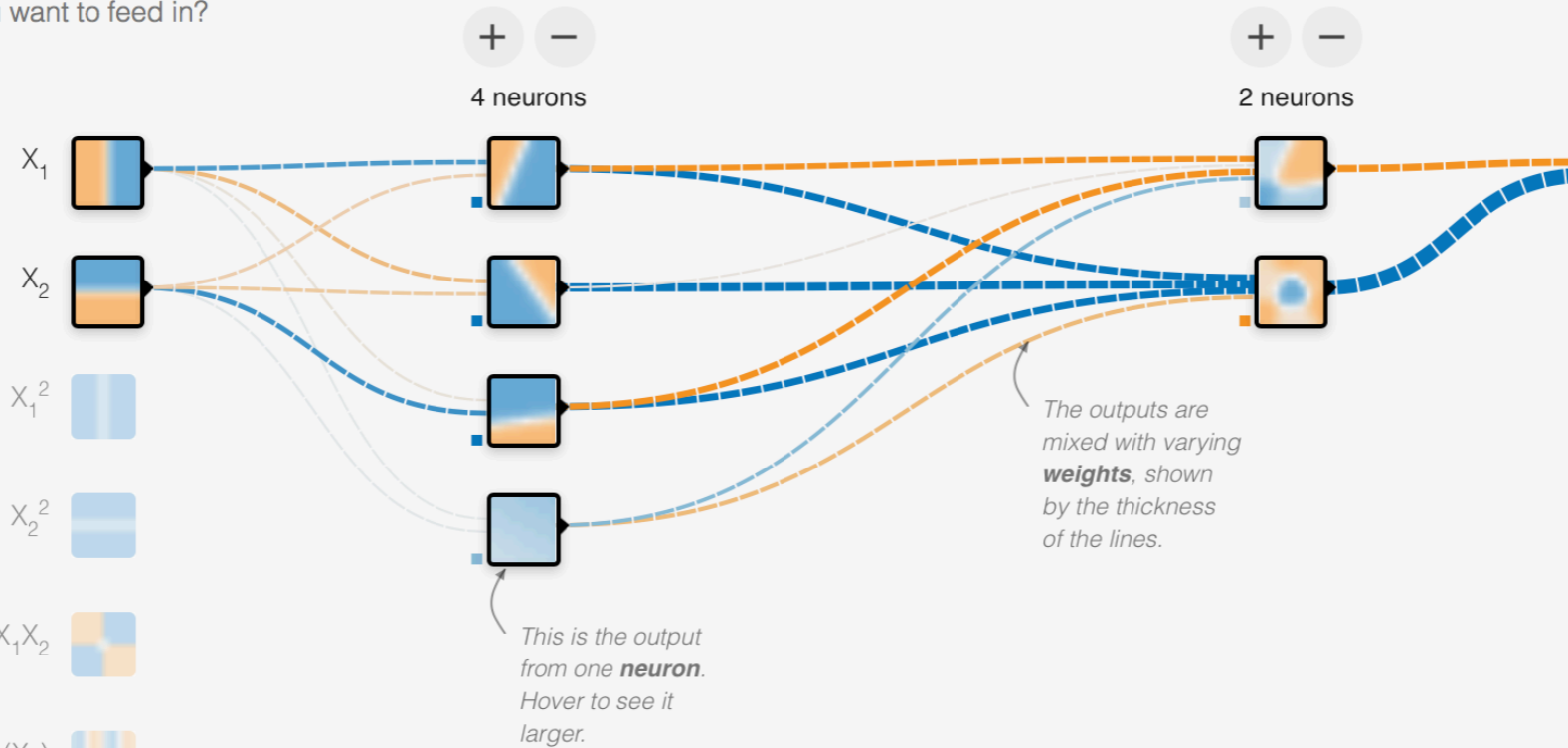
REGENERATE

FEATURES

Which properties do you want to feed in?

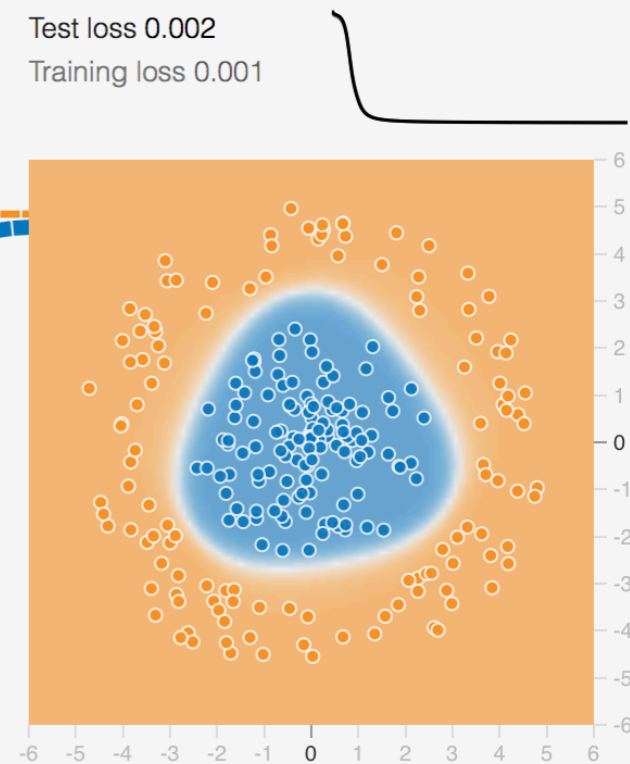
- X_1
- X_2
- X_1^2
- X_2^2
- X_1X_2
- $\sin(X_1)$
- $\sin(X_2)$

+ - 2 HIDDEN LAYERS



OUTPUT

Test loss 0.002
Training loss 0.001



Colors shows data, neuron and weight values.

Show test data Discretize output

TensorBoard: Graph Visualization

TensorBoard

EVENTS

Fit to screen

Run: cifar-train

Upload: Choose File

Color: Structure
color: same substructure
gray: unique substructure

Main Graph

Auxiliary nodes

Graph (* = expandable)

- Namespace*
- OpNode
- Unconnected series*
- Connected series*
- Constant
- Summary
- Dataflow edge
- Control dependency edge
- Reference edge

tensorflow.org

Regex filter ✕

Split on underscores

Data download links

Horizontal Axis

STEP RELATIVE WALL

Runs

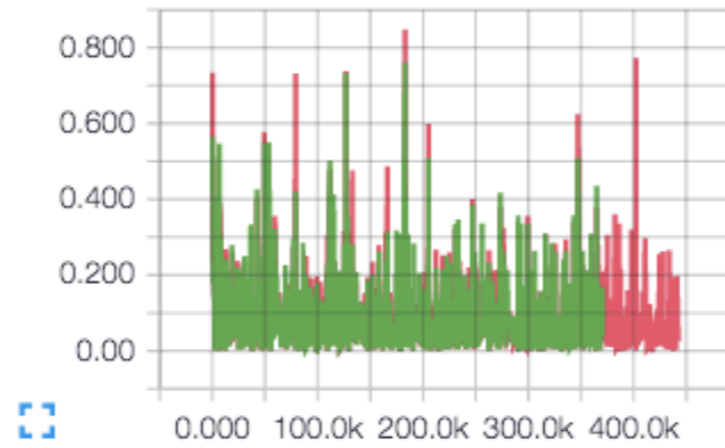
default_2016_02_21_17.53

lstm_2016_02_21_17.55

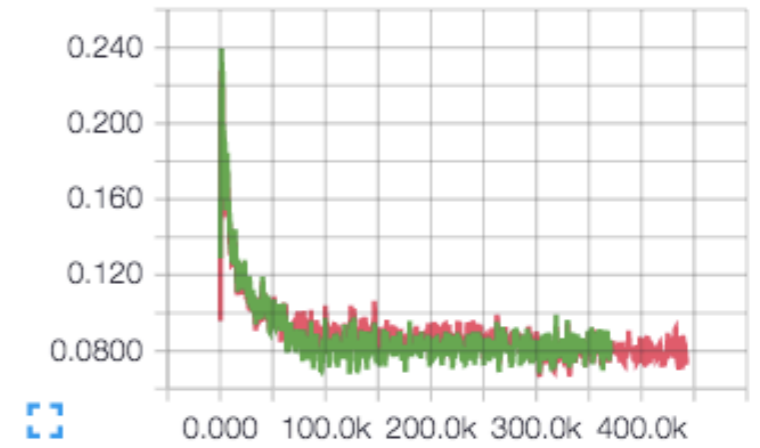
lstm_late_dropout_2016_02_21_17.55

TOGGLE ALL RUNS

test/regression_loss

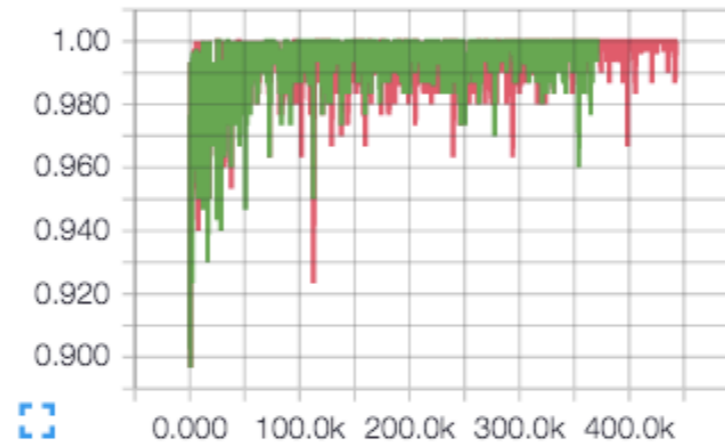


test/regression_loss/smooth

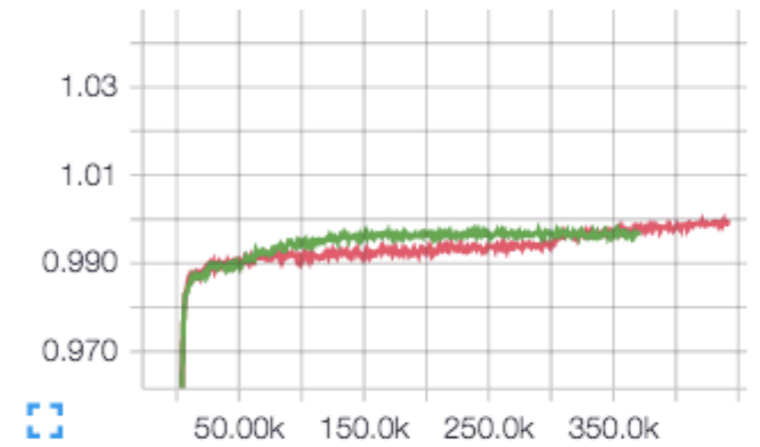


train

train/accuracy



train/accuracy/smooth



TensorBoard

input new regex

Split On Underscores:

X Type:

STEP

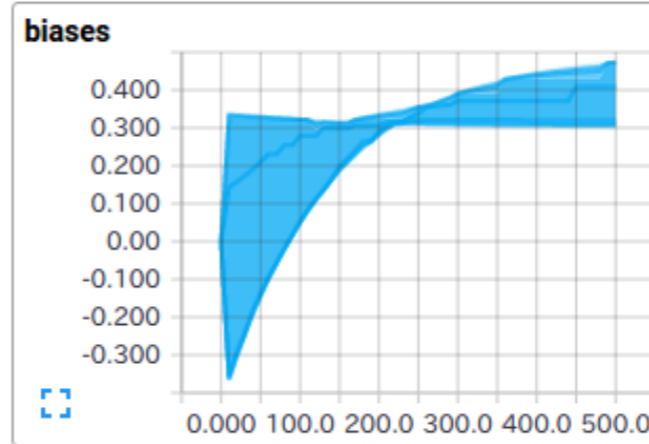
RELATIVE

WALL

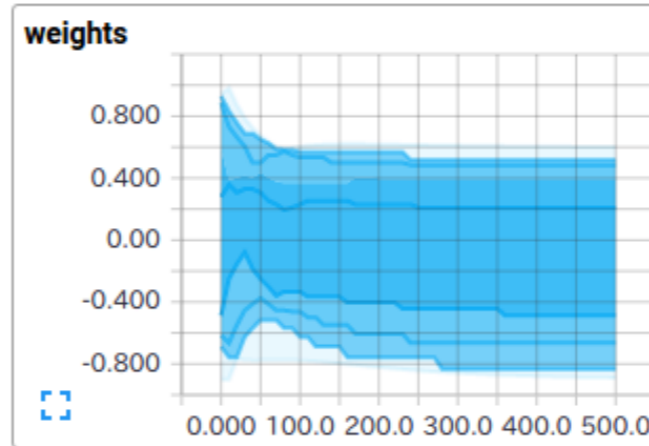
Selected Runs:



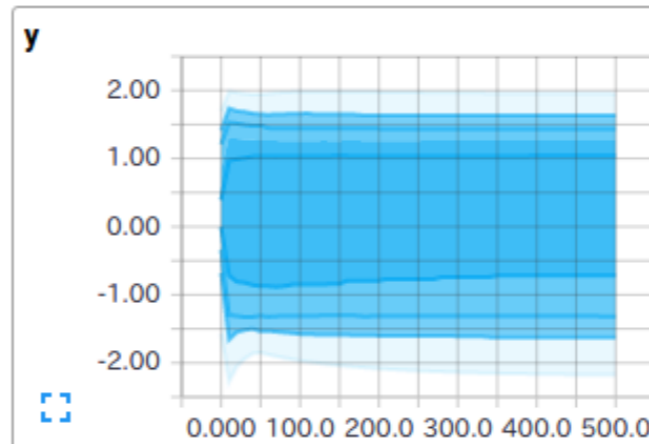
biases



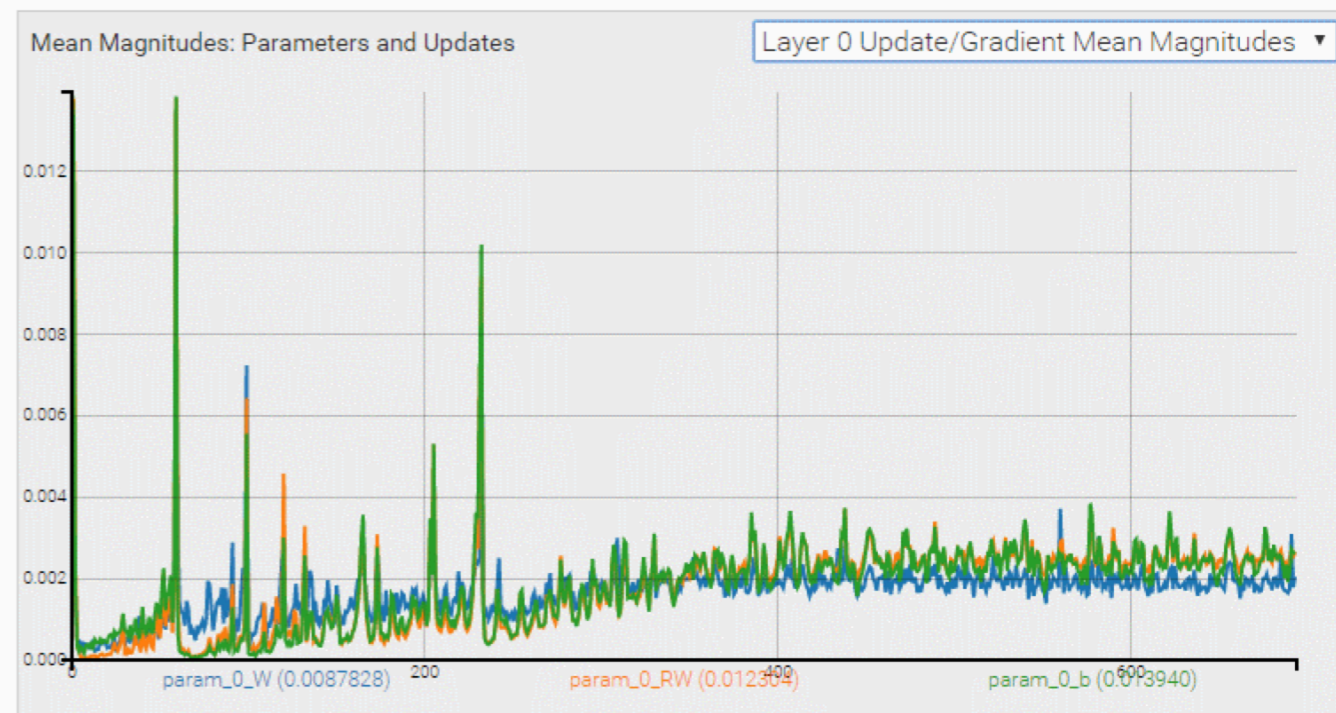
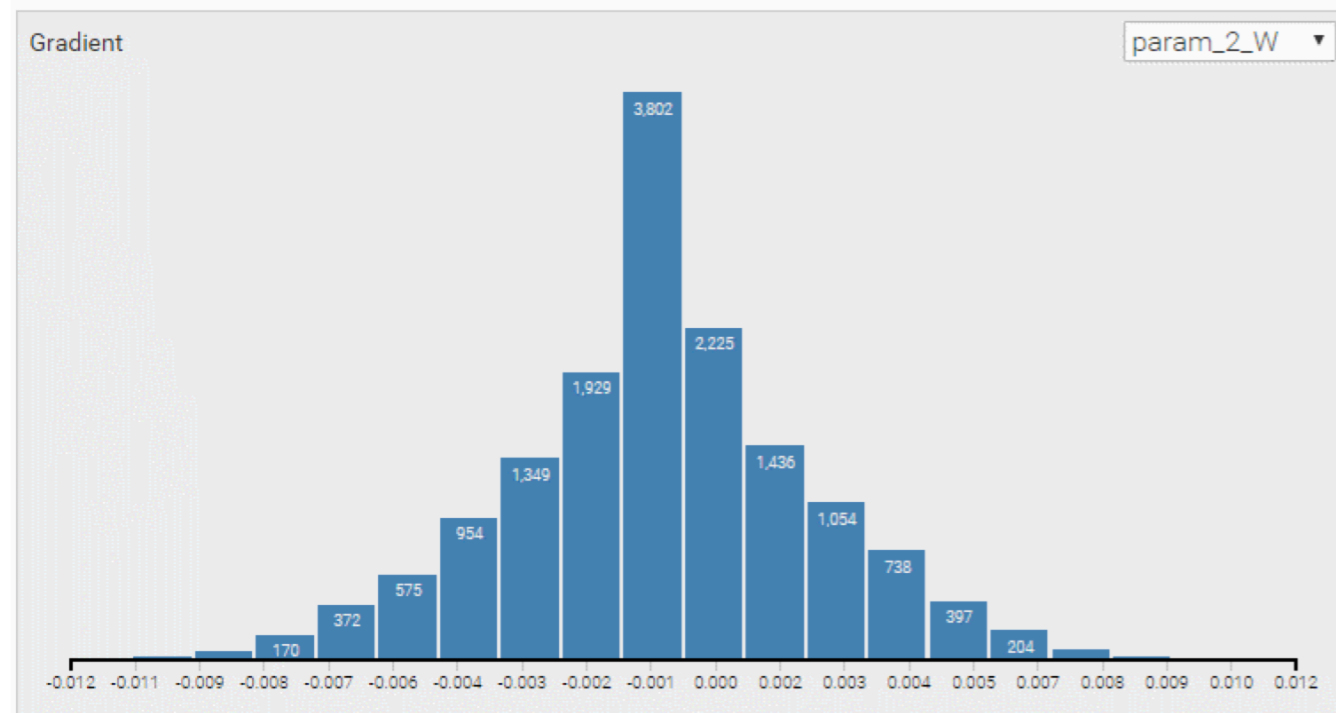
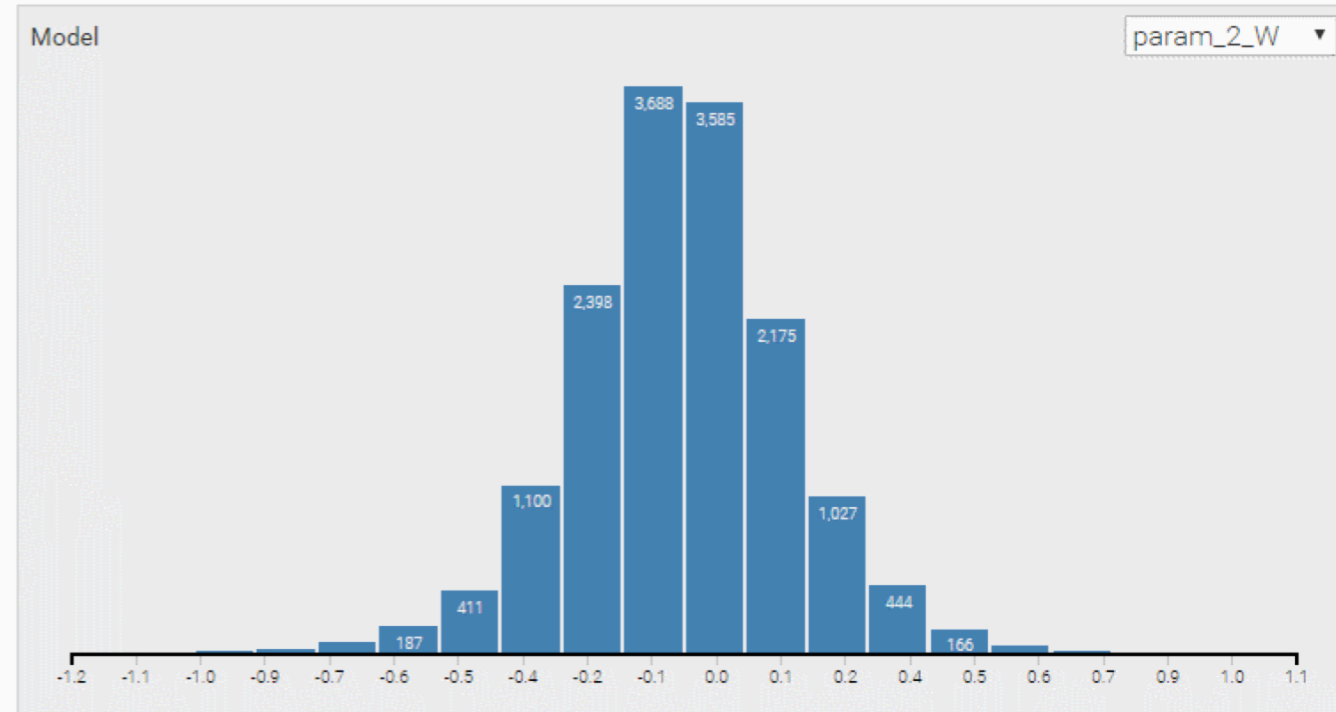
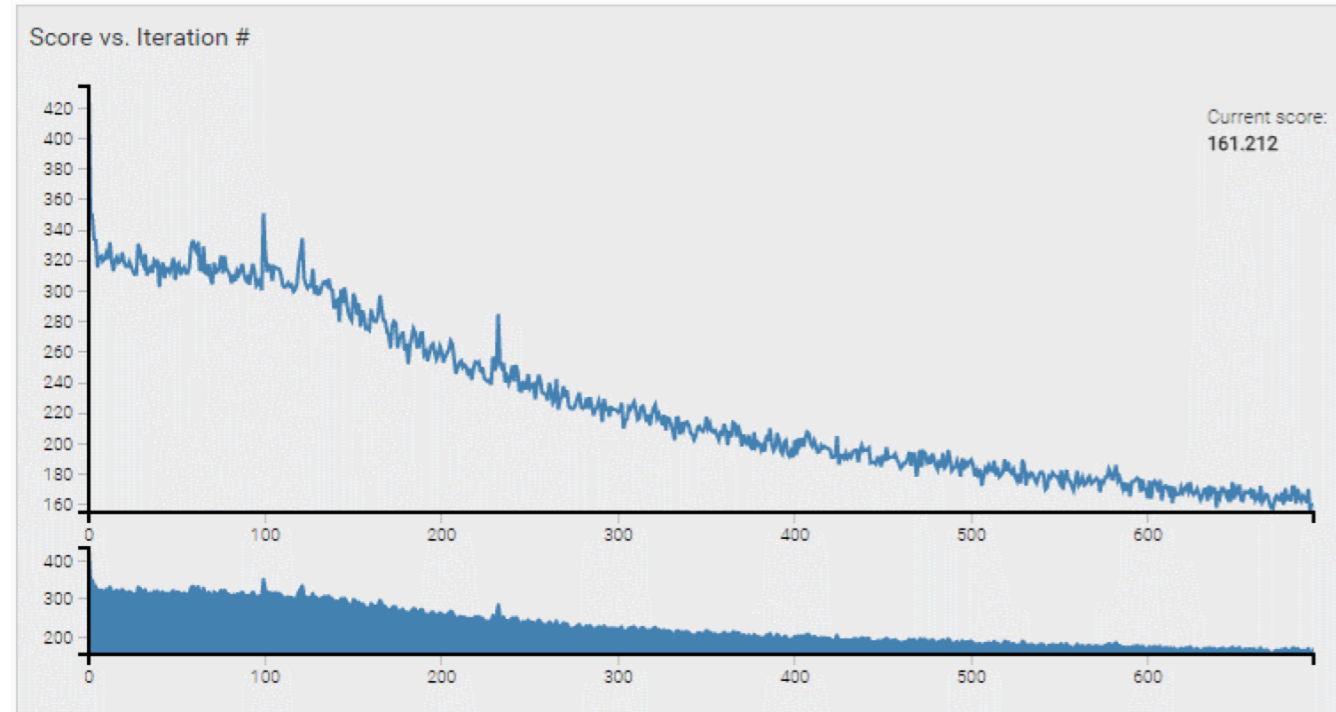
weights



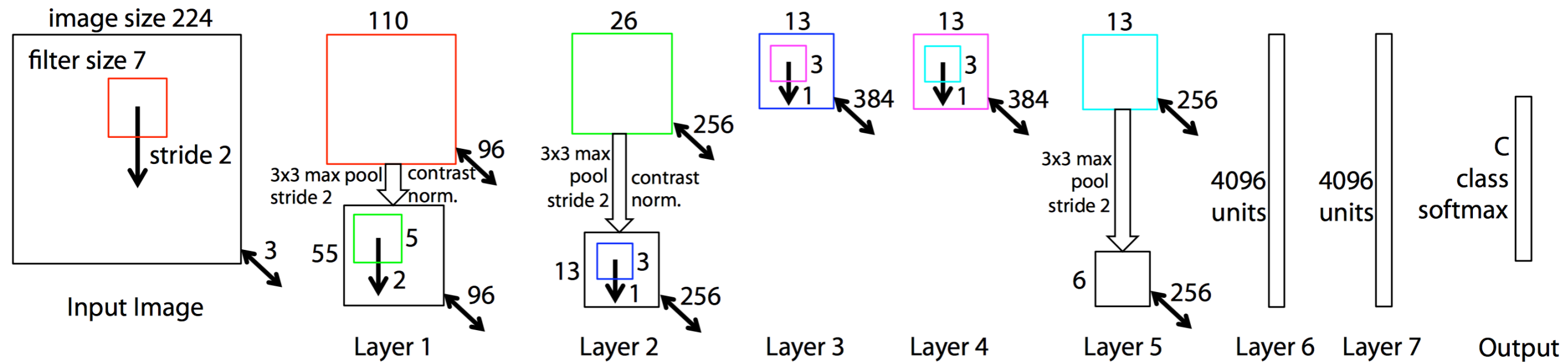
y

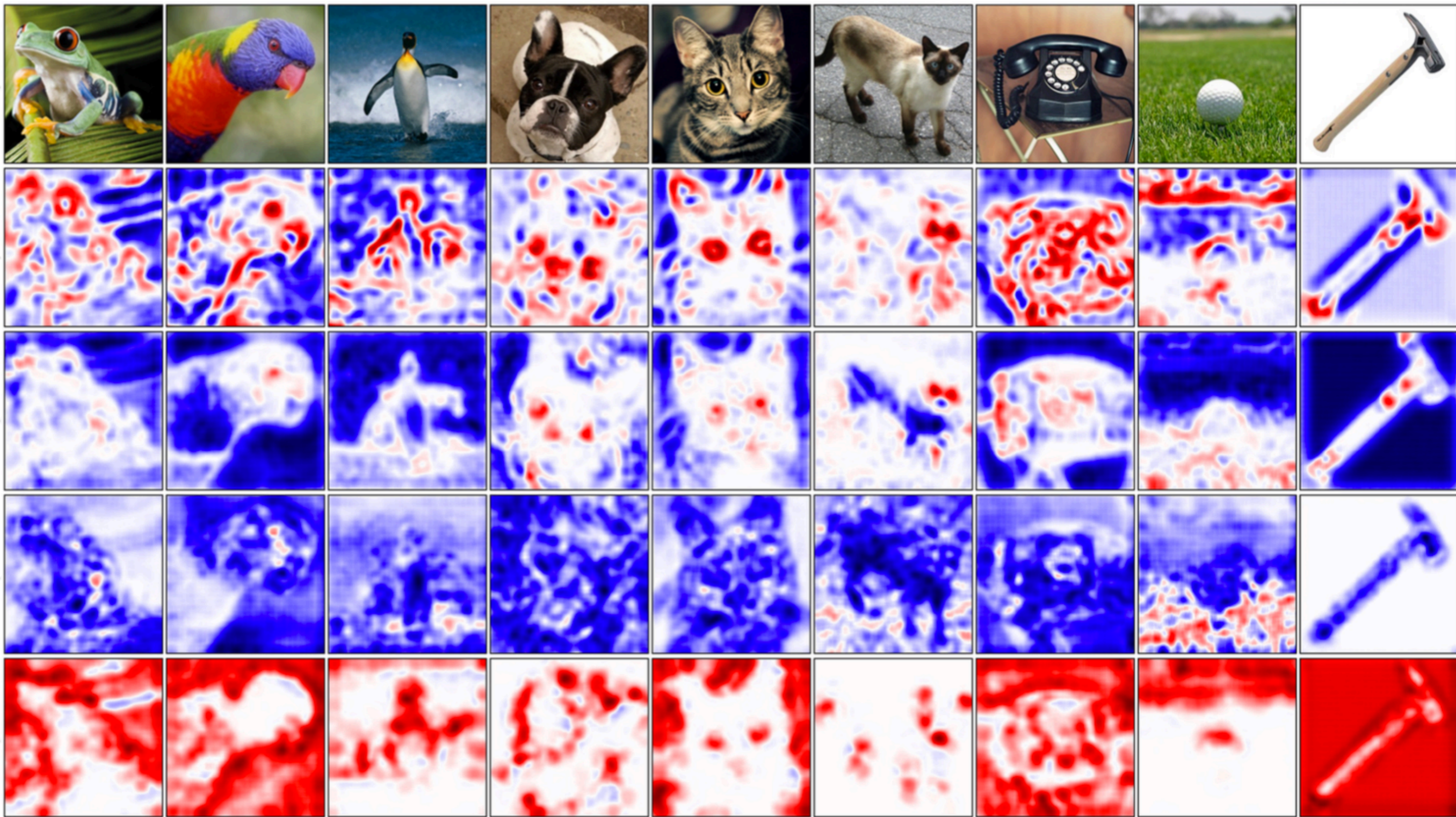


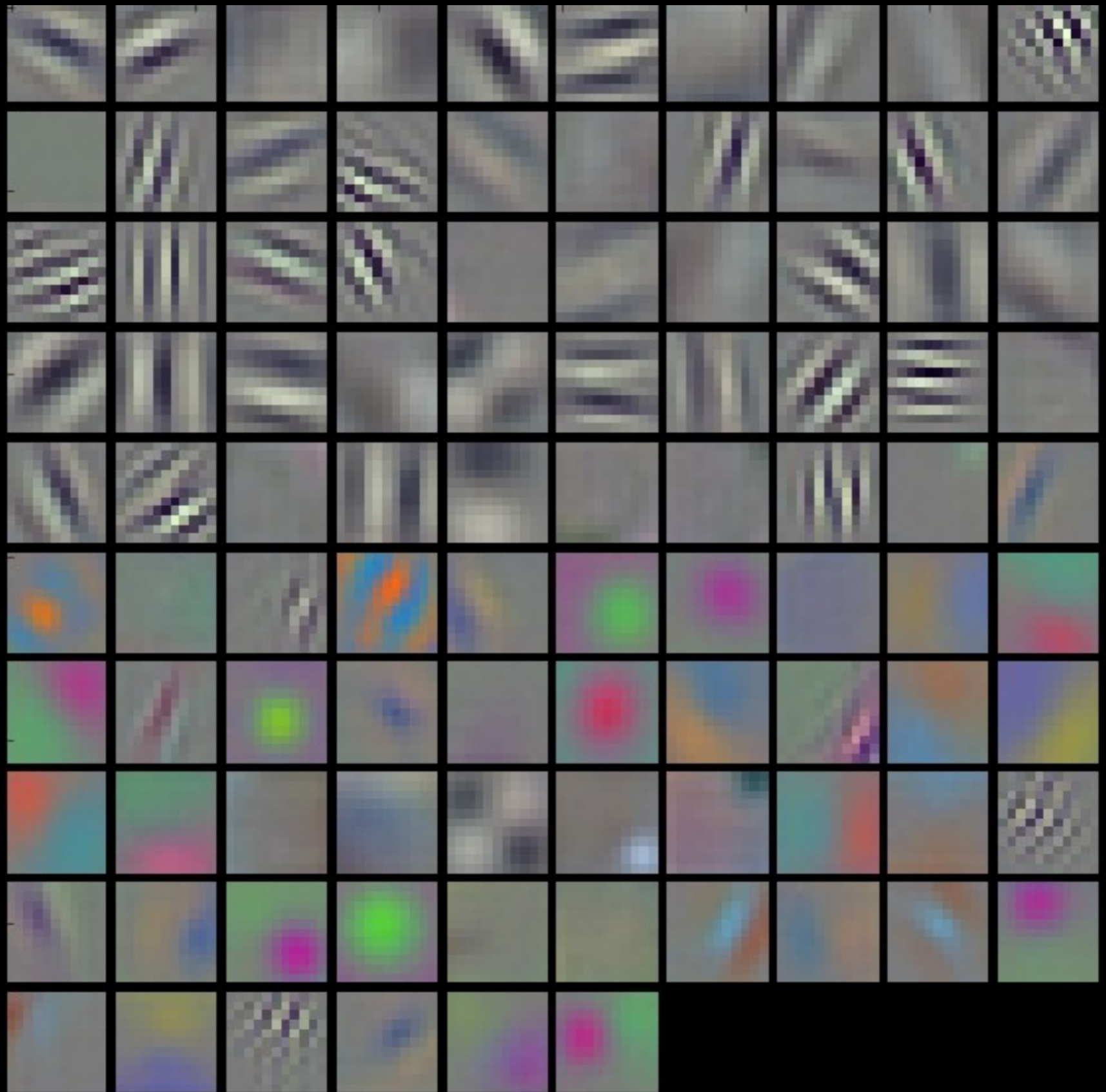
DeepLearning4j UI



Convolutional Networks



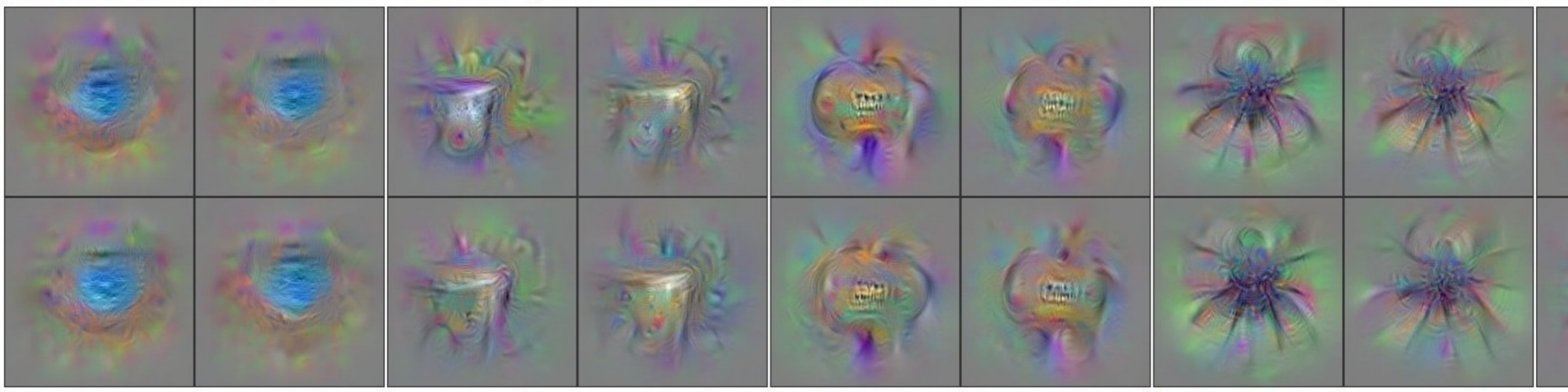




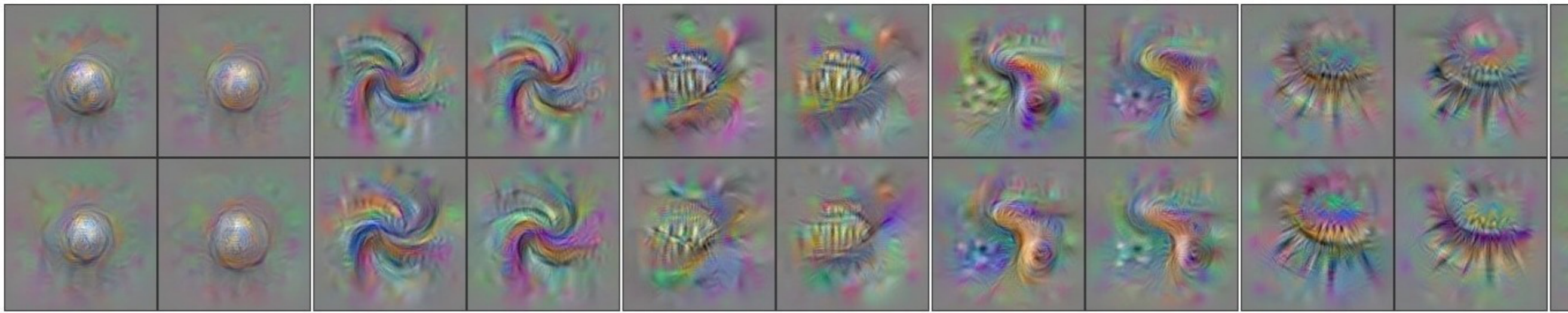
cs231n.github.io/understanding-cnn

<http://yosinski.com/deepvis>

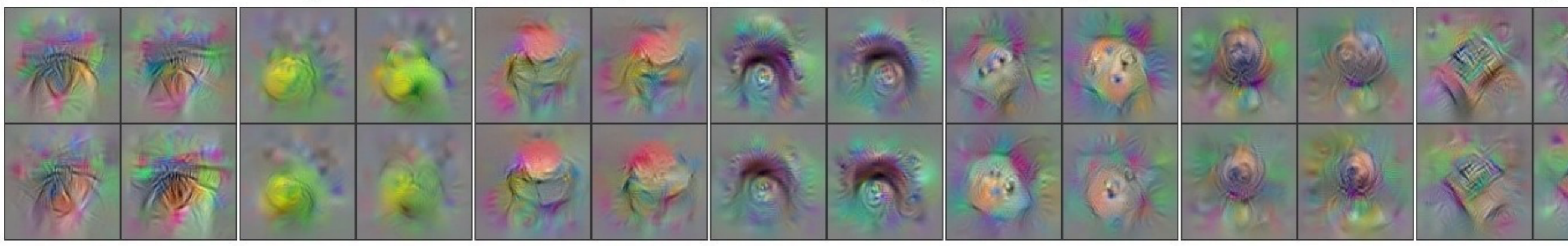
Layer 5



Layer 4



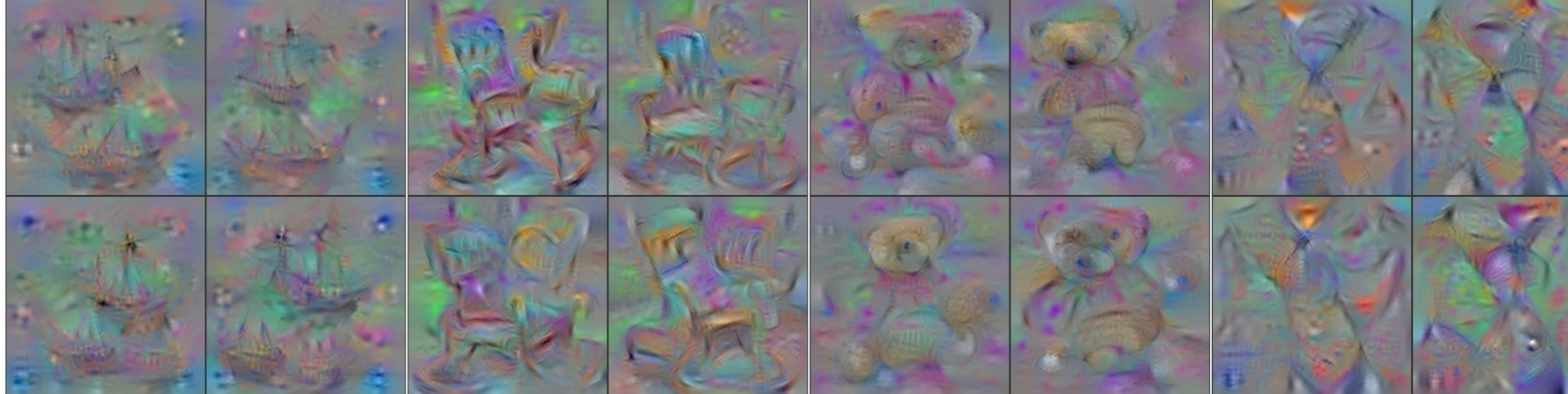
Layer 3



Layer 2



Layer 8



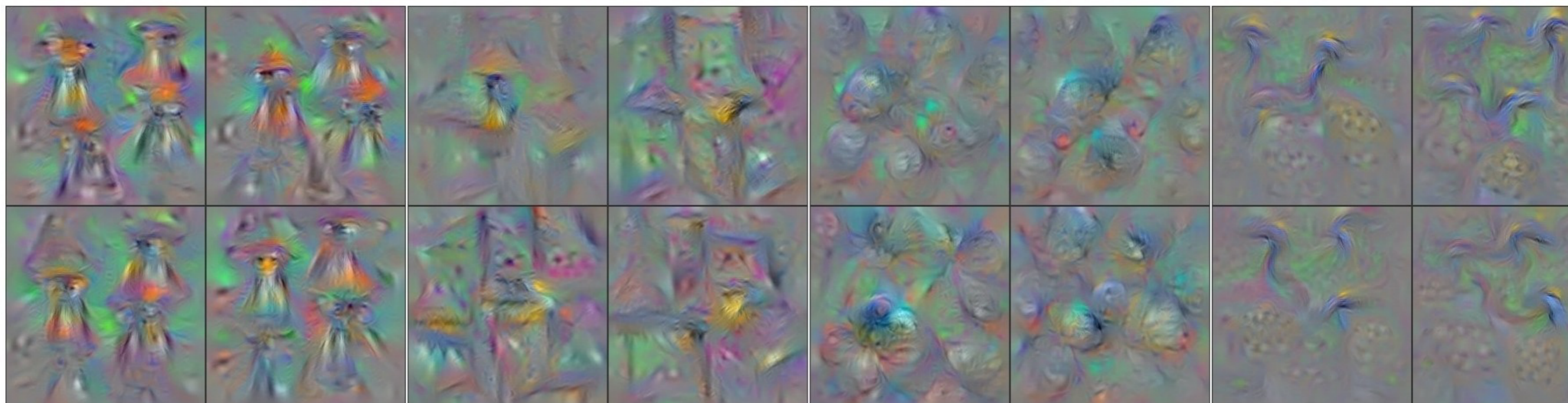
Pirate Ship

Rocking Chair

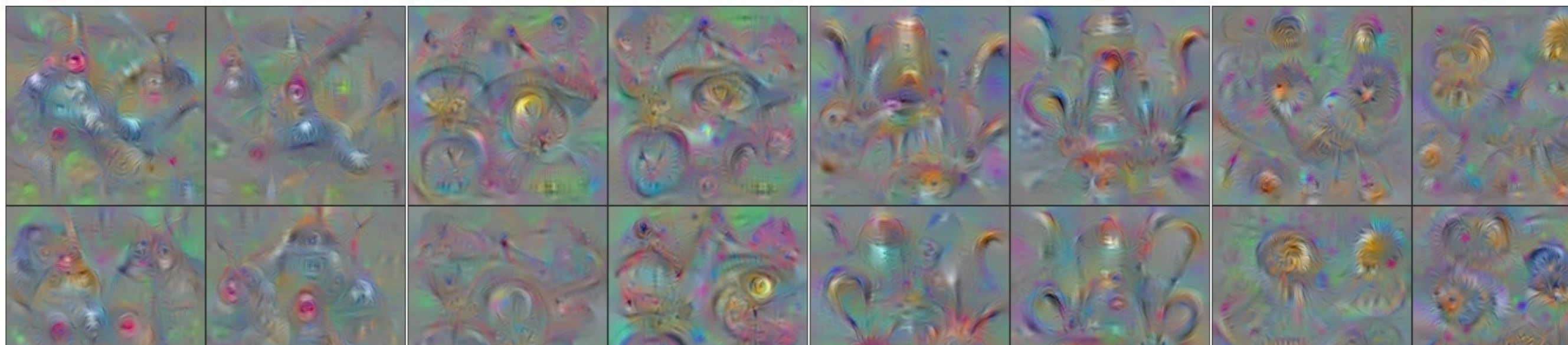
Teddy Bear

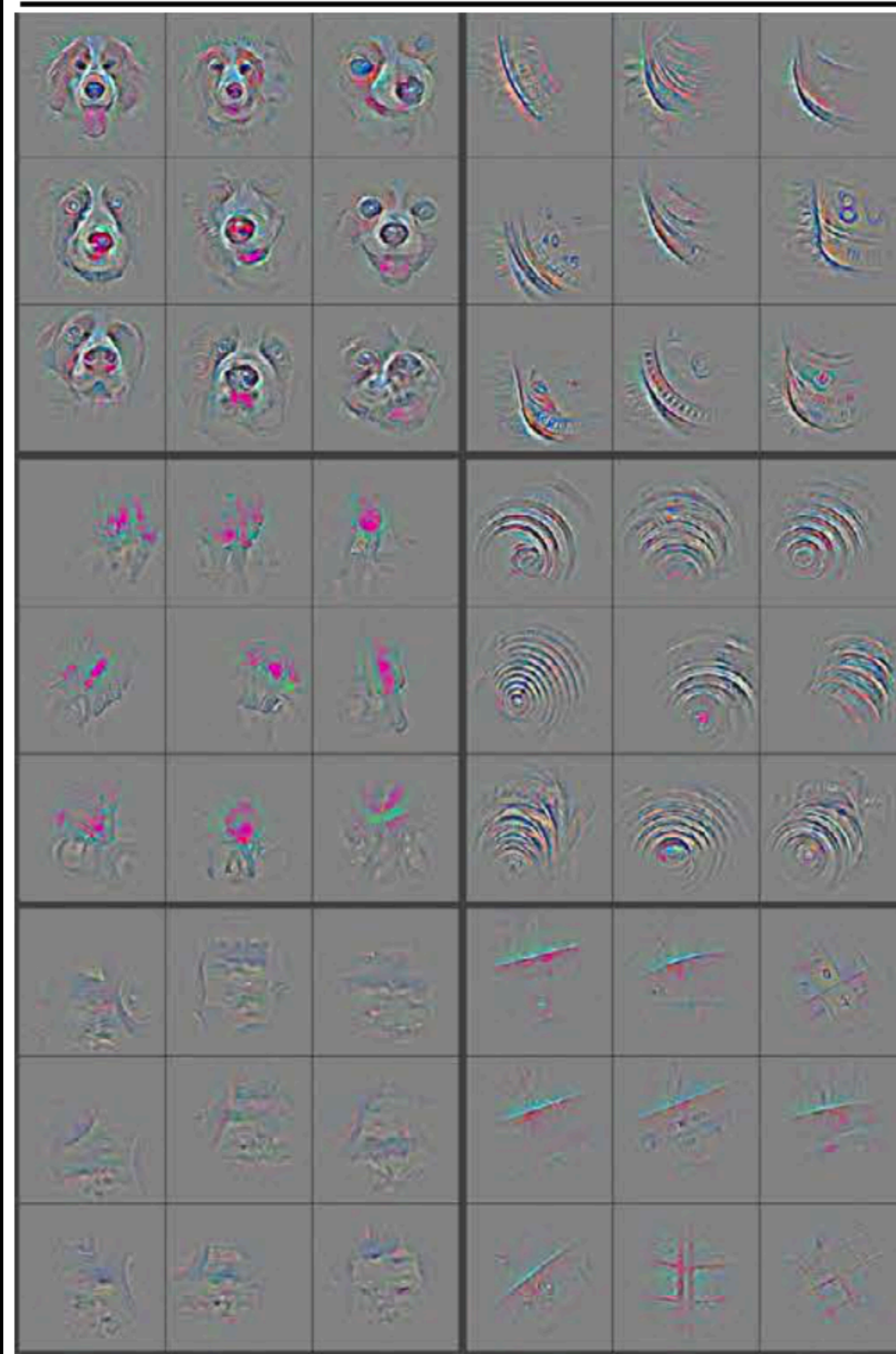
Windsor Tie

Layer 7

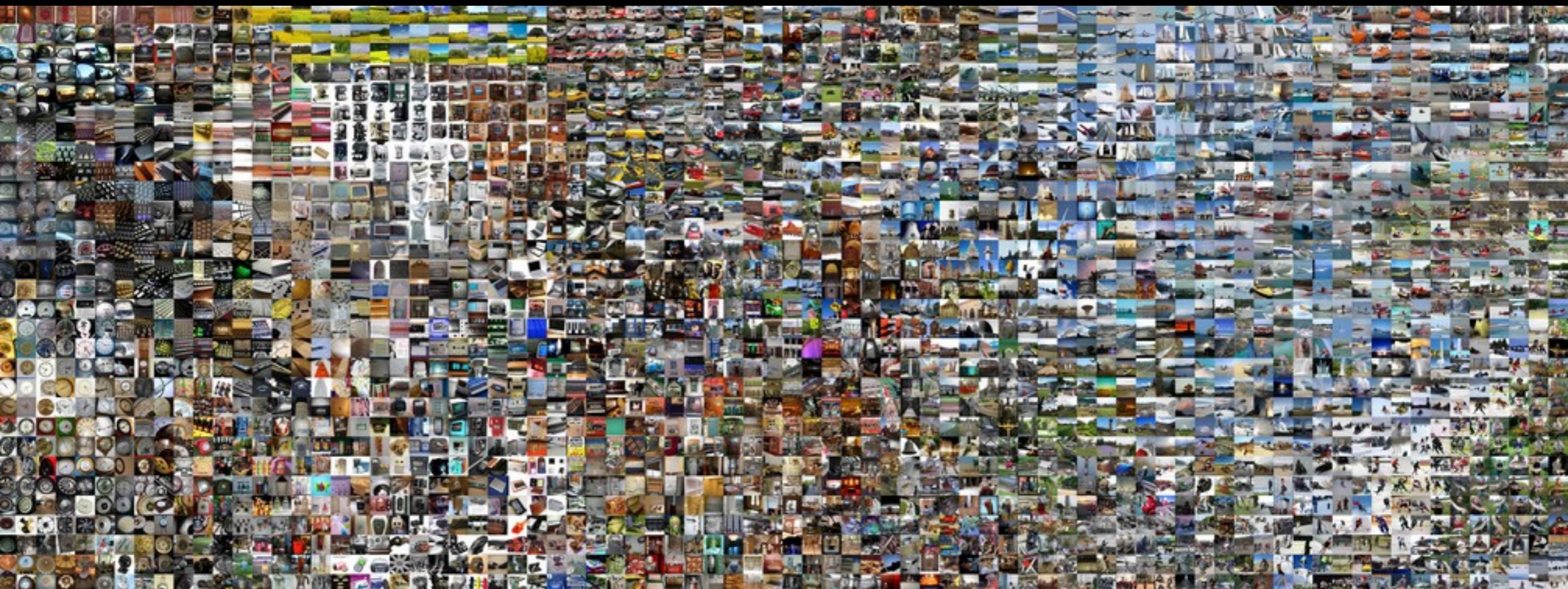


Layer 6





t-SNE



DQN

