



Deep Convolutional Networks

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Convolutional Neural Networks

- What is a Convolutional Neural Network?
- Short description
- Show an image

German Traffic Sign Recognition Benchmark

- German Traffic Sign Recognition Benchmark
- What is the task?
- Show some images

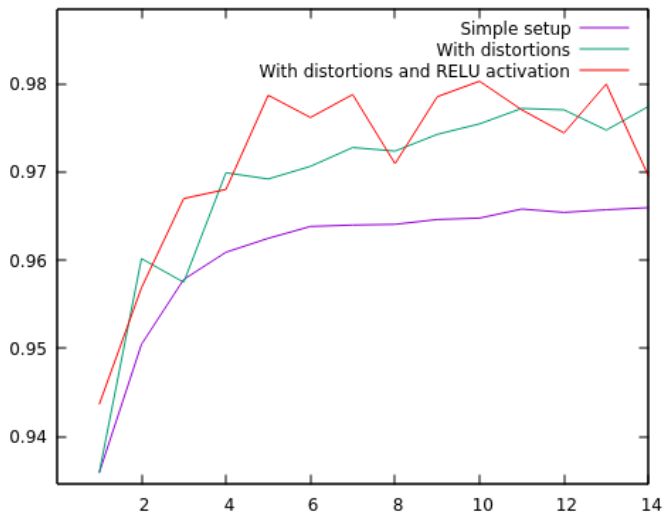
Network Structure

Layer	Type	Configuration	Activation function
0	Convolutional	100 filters of size 7×7 per channel	tanh
1	Max Pooling	Pool size 2×2	-
2	Convolutional	150 filters of size 4×4 per channel	tanh
3	Max Pooling	Pool size 2×2	-
4	Convolutional	250 filters of size 4×4 per channel	tanh
5	Max Pooling	Pool size 2×2	-
6	Dense	300 neurons	tanh
7	Dense	43 neurons	softmax

Simple Setup

- Describe Simple Setup
- Present Results

Results on GTSRB



Input Distortions

- Mention input distortions
- Explain them
- Present distortion parameters
- Maybe add one or two images before and after the transformations

Results with RELU

- Add RELU image
- Present results with RELU activation function

Missclassified images



Input



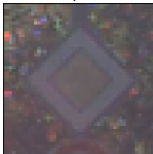
0.5814



0.2840



0.0401



Input



0.8513



0.0923



0.0493



Input



0.4296



0.2681



0.2390

Filter Reuse

- Why Filter Reuse?
- What did we do?

COIL100

- Describe COIL100 dataset
- Show image
- Show results with reused filters
- Show results with original filters

- Describe INRIA dataset
- Show image
- Show results with reused filters
- Show results with original filters

Conclusion

- Summarize results

Questions?

Questions?

