

Pixelweise Klassifikation von Straße

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Daten



Worum es geht

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Overlay



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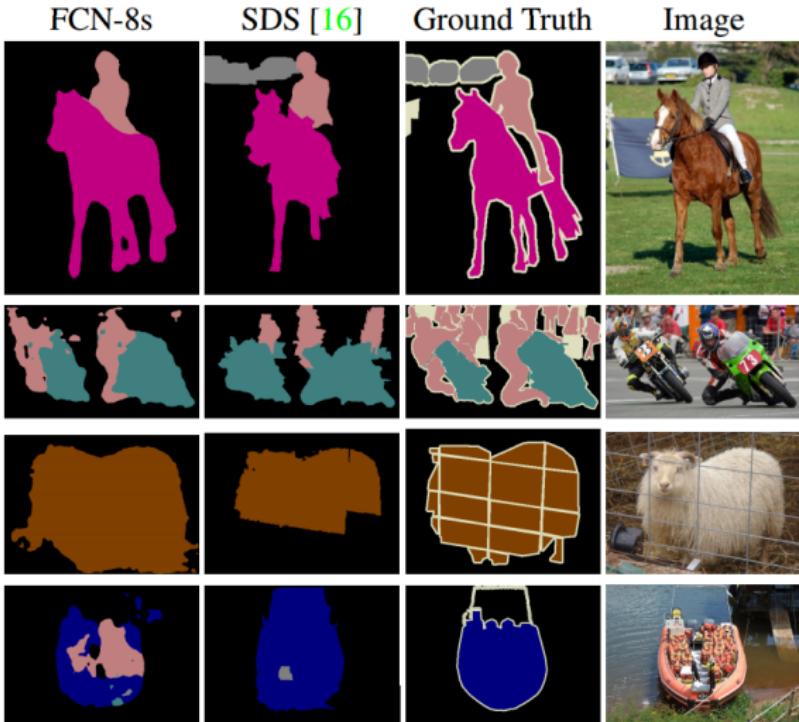
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Frameworks

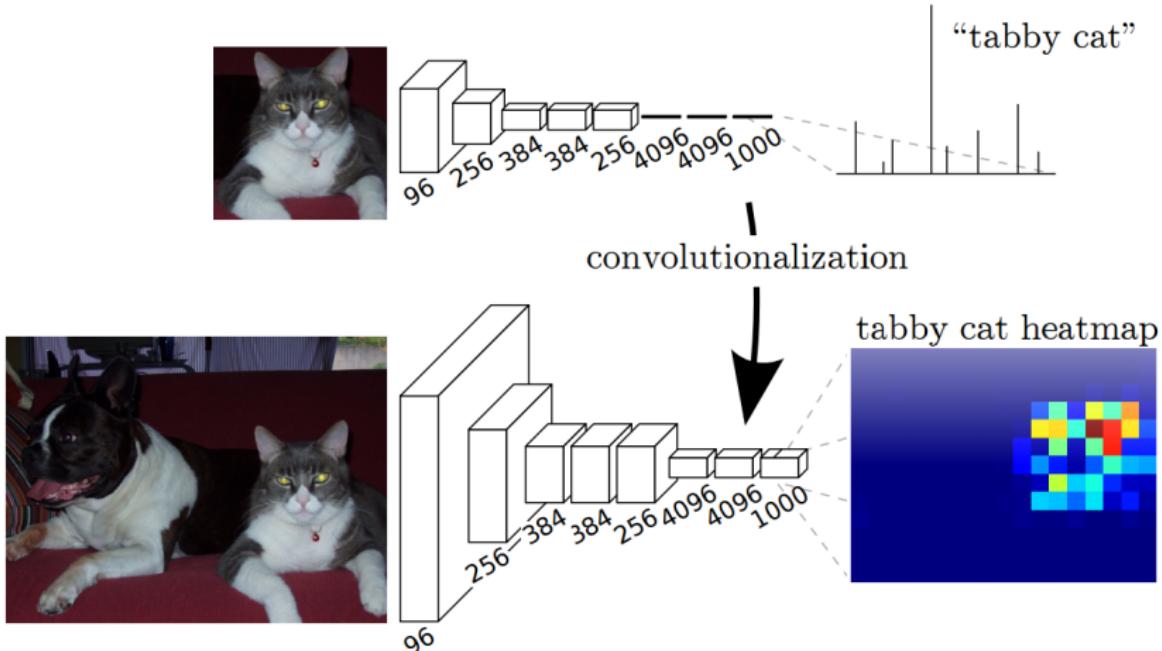
- Caffe - caffe.berkeleyvision.org
- ⇒ SST - Street Segmentation Toolkit
- nolearn - github.com/dnouri/nolearn
- Lasagne - github.com/Lasagne/Lasagne
- Theano - <https://github.com/Theano/Theano>
- nvidia CUDA

- Fully Convolutional Networks for Semantic Segmentation:
Jonathan Long, Evan Shelhamer, Trevor Darrell
- pixelwise segmentation of multiple classes

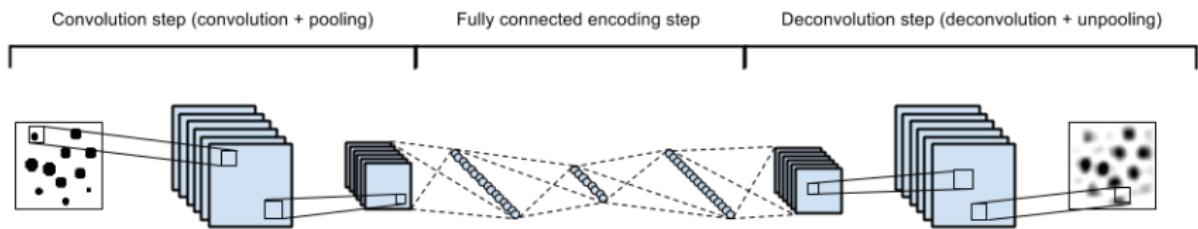
Paper - Results



Paper - Heatmap



Paper - Deconvolution



Erste Ergebnisse



Erste Ergebnisse



Worum es geht
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Paper
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Lessons learned
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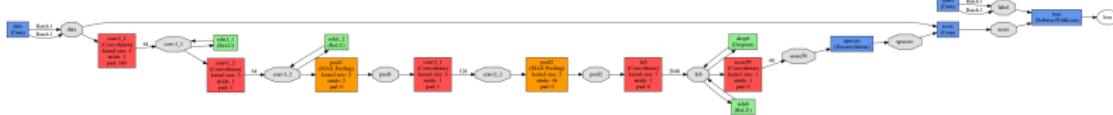
Sliding Window
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Ausblick
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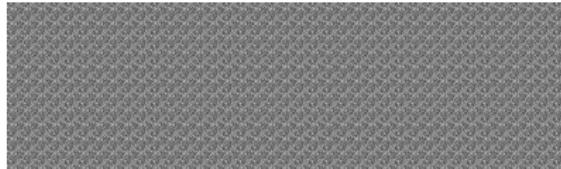
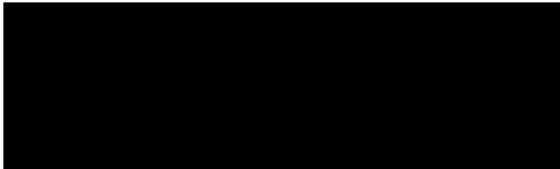
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Undokumentierter Caffe-Branch

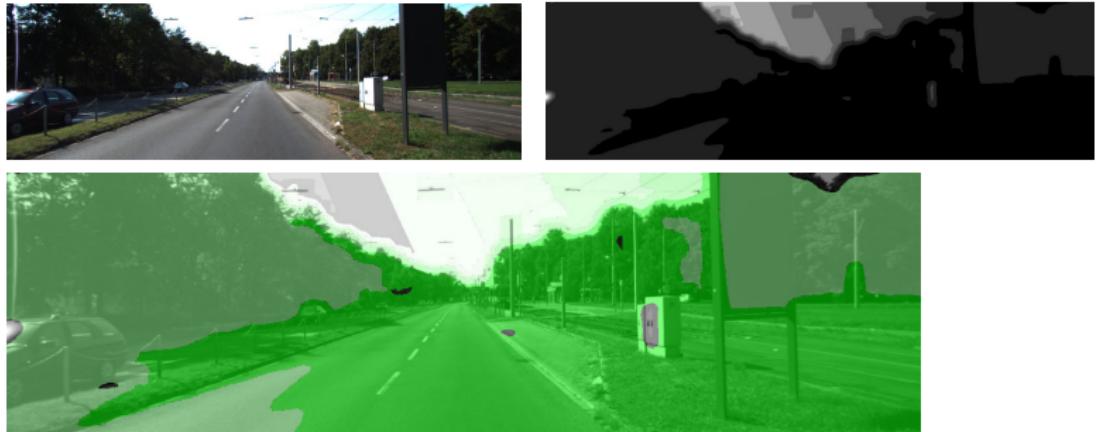
- Reduziere Netzgröße (von 11.5 GiB)



- trainiere mit Eigenen Daten



Sliding Window



- Implementierung mit Lasagne, Windowsize 29 Pixel
 - Pixelkoordinate als zusätzliches Feature
- schlechte Ergebnisse, lange Laufzeit

- Sliding Window Ansatz nicht weiterverfolgen
- in Kontakt mit Jonathan Long, bzgl. Caffe Implementierung
- Fully Concolutional Networks mit Lasagne implementieren

Davon erhoffen wir uns:

→ *flexible Anpassung, schnellere Laufzeit und gute Resultate*

Image Sources

- Paper - Results and Heatmap by Jonathan Long, Evan Shelhamer, Trevor Darrell
- Paper - Deconvolution by Mike Swarbrick Jones

Thanks for Your Attention!

