Large Scale Visual Recognition Challenge (ILSVRC) 2016

Object Localization (LOC)

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Stanford

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Result in ILSVRC over the years
ILSVRC image classification (CLS) task

Steel drum

1000 object classes 1,431,167 images CLS-LOC
ILSVRC image classification (CLS) task

Steel drum

Output:
Scale
T-shirt
Steel drum
Drumstick
Mud turtle

Output:
Scale
T-shirt
Giant panda
Drumstick
Mud turtle

Error = \frac{1}{100,000} \sum_{100,000 \text{ images}} 1[\text{incorrect on image } i]
ILSVRC object localization (LOC) task

Steel drum
ILSVRC object localization (LOC) task

Steel drum

Output

Output (bad localization)

Output (bad classification)
ILSVRC object localization (LOC) task

Steel drum

Output

Persian cat
Picket fence
Steel drum
Folding chair
Loud speaker

Error = \frac{1}{100,000} \sum_{\text{100,000 images}} 1[\text{incorrect on image i}]
ILSVRC2016 LOC results – with “provided” data

<table>
<thead>
<tr>
<th>Team Name</th>
<th>Error (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimps-Soushen</td>
<td>7.71</td>
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<tr>
<td>Hikvision</td>
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<td>NUIST</td>
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<td>KAISTNIA_ETRI</td>
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Trimps-Soushen: Jie Shao, Xiaoteng Zhang, Zhengyan Ding, Yixin Zhao, Yanjun Chen, Jianying Zhou, Wenfei Wang, Lin Mei, Chuanping Hu
The Third Research Institute of the Ministry of Public Security, P.R. China.

Hikvision: Qiaoyong Zhong*, Chao Li, Yingying Zhang(#), Haiming Sun*, Shicai Yang*, Di Xie, Shiliang Pu
(* indicates equal contribution)
Hikvision Research Institute
(#)ShanghaiTech University, is done at HRI
ILSVRC2016 CLS results – with “provided” data

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<tr>
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<tr>
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<td>ResNeXt</td>
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ResNeXt: Saining Xie, UCSD
Ross Girshick, FAIR
Piotr Dollar, FAIR
Kaiming He, FAIR
ILSVRC2016 LOC results – with “external” data

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<tr>
<td>NUIST</td>
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NUIST:
Jing Yang, Hui Shuai, Zhengbo Yu, Rongrong Fan, Qiang Ma, Qingshan Liu, Jiankang Deng
## ILSVRC2016 CLS results – with “external” data

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NUIST:  
Jing Yang, Hui Shuai, Zhengbo Yu, Rongrong Fan, Qiang Ma, Qingshan Liu, Jiankang Deng
Object localization (LOC)

Winner with “provided” and “external” data

Trimps-Soushen:
Jie Shao, Xiaoteng Zhang,
Zhengyan Ding, Yixin Zhao,
Yanjun Chen, Jianying Zhou,
Wenfei Wang, Lin Mei,
Chuanping Hu

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