

Annotation Interface

The web interface for each paper is at http://localhost:port/arxiv_id

[Link to the Original Paper](#)

[Link to the Indexed Bibliography](#) (in case you want to open two tabs side by side)

Notes

- 1. You have to click the 'submit' button to save data for **every individual table!!** The bib and PwCid input cells are not editable unless positively labeled. Please do not open multiple interfaces editing simultaneously.
- 2. There might be cells that contain an entity mention and a non-entity mention string, e.g., "Bert-large", "Bert with 6 layers frozen". For these cells, you should focus on the entity mention. Thus those two mentions should both be labeled as Method, and linked to <https://paperswithcode.com/method/bert>.
- 3. You can scoll down to [the end of this page](#) to see indexed bib items.

Annotation Table 1

Verify pre-populated cell types

| | Mean <input checked="" type="checkbox"/> Metric | ceiling <input checked="" type="checkbox"/> Dataset | floor <input checked="" type="checkbox"/> Dataset | wall <input checked="" type="checkbox"/> Dataset | beam <input checked="" type="checkbox"/> Dataset | column <input checked="" type="checkbox"/> Dataset | window <input checked="" type="checkbox"/> Dataset | door <input checked="" type="checkbox"/> Dataset | table <input checked="" type="checkbox"/> Dataset | chair <input checked="" type="checkbox"/> Dataset | sofa <input checked="" type="checkbox"/> Dataset | bookcase <input checked="" type="checkbox"/> Dataset | board <input checked="" type="checkbox"/> Dataset |
|--|--|--|--|---|---|---|---|---|--|--|---|---|--|
| Armeni et al. [1] <input checked="" type="checkbox"/> Method | 49.93 | 71.61 | 88.70 | 72.86 | 66.67 | 91.77 | 25.92 | 54.11 | 46.02 | 16.15 | 6.78 | 54.71 | 3.91 |
| Seg-Cluster <input checked="" type="checkbox"/> Method | 20.39 | 43.58 | 35.52 | 16.64 | 12.59 | 15.90 | 23.86 | 15.75 | 22.63 | 10.33 | 3.92 | 43.33 | 10.71 |
| SGPN <input checked="" type="checkbox"/> Method | 54.35 | 79.44 | 66.29 | 88.77 | 77.98 | 60.71 | 66.62 | 56.75 | 46.90 | 40.77 | 6.38 | 47.61 | 11.05 |

Table 1: Results on instance segmentation in S3DIS scenes. The metric is AP(%) with IoU threshold 0.5. To the best of our knowledge, there are no existing instance segmentation methods on point clouds for arbitrary object categories. The result of Armeni et al. [1] is on 3D object detection and...

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| | | | | | | | | | | | | | |
|-----------|-------|---------|-------|-------|-------|--------|--------|-------|-------|-------|------|----------|-------|
| | Mean | ceiling | floor | wall | beam | column | window | door | table | chair | sofa | bookcase | board |
| Armeni et | 49.93 | 71.61 | 88.70 | 72.86 | 66.67 | 91.77 | 25.92 | 54.11 | 46.02 | 16.15 | 6.78 | 54.71 | 3.91 |
| Seg-Clust | 20.39 | 43.58 | 35.52 | 16.64 | 12.59 | 15.90 | 23.86 | 15.75 | 22.63 | 10.33 | 3.92 | 43.33 | 10.71 |
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Annotation Interface

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Armeni et | 49.93 | 71.61 | 88.70 | 72.86 | 66.67 | 91.77 | 25.92 | 54.11 | 46.02 | 16.15 | 6.78 | 54.71 | 3.91 |
| Armeni et | | | | | | | | | | | | | |
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| SGPN | | | | | | | | | | | | | |

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Annotation Table 2

Verify pre-populated cell types

| | | |
|---|--|--|
| | Mean IoU <input checked="" type="checkbox"/> Metric | Accuracy <input checked="" type="checkbox"/> Metric |
| PointNet [31] <input checked="" type="checkbox"/> Method | 49.76 | 79.66 |
| SGPN <input checked="" type="checkbox"/> Method | 50.37 | 80.78 |

Table 4: Results on semantic segmentation in S3DIS scenes. SGPN uses PointNet as baseline. Metric is mean IoU(%) over 13 classes (including clutter)....

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|---------------|----------|----------|
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| SGPN | | |

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Annotation Table 3

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| | | | | | | | | | | | | | | | | | |
|------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | air- plane | bag | cap | car | chair | head | guitar | knife | lamp | laptop | motor | mug | pistol | rocket | skate | table |
| | <input checked="" type="checkbox"/> Metric | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | phone | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | <input checked="" type="checkbox"/> Dataset | board | <input checked="" type="checkbox"/> Dataset |
| | | | | | | | <input checked="" type="checkbox"/> Dataset | | | | | | | | | <input checked="" type="checkbox"/> Dataset | |
| [33] | 84.6 | 80.4 | 80.9 | 60.0 | 76.8 | 88.1 | 83.7 | 90.2 | 82.6 | 76.9 | 94.7 | 68.0 | 91.2 | 82.1 | 59.9 | 78.2 | 87.5 |
| SGPN | 85.8 | 80.4 | 78.6 | 78.8 | 71.5 | 88.6 | 78.0 | 90.9 | 83.0 | 78.8 | 95.8 | 77.8 | 93.8 | 87.4 | 60.1 | 92.3 | 89.4 |
| | <input checked="" type="checkbox"/> Method | | | | | | | | | | | | | | | | |

Table 7: Semantic segmentation results on ShapeNet part dataset. Metric is mean IoU(%) on points....

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| | Mean | air- plæ | bag | cap | car | chair | head p | guitar | knife | lamp | laptop | motor | mug | pistol | rocket | skate l | table |
| [33] | 84.6 | 80.4 | 80.9 | 60.0 | 76.8 | 88.1 | 83.7 | 90.2 | 82.6 | 76.9 | 94.7 | 68.0 | 91.2 | 82.1 | 59.9 | 78.2 | 87.5 |
| SGPN | 85.8 | 80.4 | 78.6 | 78.8 | 71.5 | 88.6 | 78.0 | 90.9 | 83.0 | 78.8 | 95.8 | 77.8 | 93.8 | 87.4 | 60.1 | 92.3 | 89.4 |

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[illegible]

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1. I. Armeni, O. Sener, A. R. Zamir, H. Jiang, I. Brilakis, M. Fischer, and S. Savarese. 3d semantic parsing of large-scale indoor spaces. In CVPR, 2016.
2. V. Badrinarayanan, A. Kendall, and R. Cipolla. Segnet: A deep convolutional encoder-decoder architecture for image segmentation. TPAMI, 2017.
3. L. Bertinetto, J. Valmadre, J. F. Henriques, A. Vedaldi, and P. H. S. Torr. Fully-convolutional siamese networks for object tracking. In ECCV Workshops, 2016.
4. A. X. Chang, T. Funkhouser, L. Guibas, P. Hanrahan, Q. Huang, Z. Li, S. Savarese, M. Savva, S. Song, H. Su, et al. Shapenet: An information-rich 3d model repository. arXiv preprint arXiv:1512.03012, 2015.
5. X. Chen, H. Ma, J. Wan, B. Li, and T. Xia. Multi-view 3d object detection network for autonomous driving. In CVPR, 2017.
6. S. Chopra, R. Hadsell, and Y. LeCun. Learning a similarity metric discriminatively, with application to face verification. In CVPR, 2005.
7. A. Dai, A. X. Chang, M. Savva, M. Halber, T. Funkhouser, and M. Niessner. Scannet: Richly-annotated 3d reconstructions of indoor scenes. In CVPR, 2017.
8. A. Dai, C. R. Qi, and M. Niessner. Shape completion using 3d-encoder-predictor cnns and shape synthesis. In CVPR, 2017.
9. J. Dai, K. He, Y. Li, S. Ren, and J. Sun. Instance-sensitive fully convolutional networks. In ECCV, 2016.
10. J. Dai, K. He, and J. Sun. Instance-aware semantic segmentation via multi-task network cascades. In CVPR, 2016.

11. Z. Deng and L. J. Latecki. Amodal detection of 3d objects: Inferring 3d bounding boxes from 2d ones in rgb-depth images. In CVPR, 2017.
12. A. Frome, Y. Singer, F. Sha, and J. Malik. Learning globally-consistent local distance functions for shape-based image retrieval and classification. In ICCV, 2007.
13. C.-Y. Fu, W. Liu, A. Ranga, A. Tyagi, and A. C. Berg. Dssd: Deconvolutional single shot detector. arXiv preprint arXiv:1701.06659, 2017.
14. R. Girshick. Fast r-cnn. In ICCV, 2015.
15. R. Girshick, J. Donahue, T. Darrell, and J. Malik. Rich feature hierarchies for accurate object detection and semantic segmentation. In CVPR, 2014.
16. X. Han, T. Leung, Y. Jia, R. Sukthankar, and A. C. Berg. Matchnet: Unifying feature and metric learning for patch-based matching. In CVPR, 2015.
17. X. Han, Z. Li, H. Huang, E. Kalogerakis, and Y. Yu. High-resolution shape completion using deep neural networks for global structure and local geometry inference. In ICCV, 2017.
18. K. He, G. Gkioxari, P. Dollar, and R. Girshick. Mask r-cnn. In ICCV, 2017.
19. D. Kingma and J. Ba. Adam: A method for stochastic optimization. arXiv preprint arXiv:1412.6980, 2014.
20. G. Koch, R. Zemel, and R. Salakhutdinov. Siamese neural networks for one-shot image recognition. In ICML Deep Learning Workshop, 2015.
21. A. Krizhevsky, I. Sutskever, and G. E. Hinton. Imagenet classification with deep convolutional neural networks. In NIPS, 2012.
22. L. Leal-Taixe, C. Canton-Ferrer, and K. Schindler. Learning by tracking: siamese cnn for robust target association. CVPR DeepVision Workshops, 2016.
23. Y. Li, H. Qi, J. Dai, X. Ji, and Y. Wei. Fully convolutional instance-aware semantic segmentation. In CVPR, 2017.
24. T.-Y. Lin, P. Dollar, R. Girshick, K. He, B. Hariharan, and S. Belongie. Feature pyramid networks for object detection. In CVPR, 2017.
25. T.-Y. Lin, P. Goyal, R. Girshick, K. He, and P. Dollar. Focal loss for dense object detection. In CVPR, 2017.
26. W. Liu, D. Anguelov, D. Erhan, C. Szegedy, S. Reed, C.-Y. Fu, and A. C. Berg. SSD: Single shot multibox detector. In ECCV, 2016.
27. D. Maturana and S. Scherer. Voxnet: A 3d convolutional neural network for real-time object recognition. In IROS, 2015.
28. A. Newell and J. Deng. Associative embedding: End-to-end learning for joint detection and grouping. In NIPS, 2016.
29. P. O. Pinheiro, R. Collobert, and P. Dollar. Learning to segment object candidates. In NIPS, 2015.
30. P. O. Pinheiro, T.-Y. Lin, R. Collobert, and P. Dollar. Learning to refine object segments. In ECCV, 2016.
31. C. R. Qi, H. Su, K. Mo, and L. J. Guibas. Pointnet: Deep learning on point sets for 3d classification and segmentation. CVPR, 2017.
32. C. R. Qi, H. Su, M. Niessner, A. Dai, M. Yan, and L. J. Guibas. Volumetric and multi-view cnns for object classification on 3d data. In CVPR, 2016.
33. C. R. Qi, L. Yi, H. Su, and L. J. Guibas. Pointnet++: Deep hierarchical feature learning on point sets in a metric space. In NIPS, 2017.
34. X. Qi, R. Liao, J. Jia, S. Fidler, and R. Urtasun. 3d graph neural networks for rgb-d semantic segmentation. In CVPR, 2017.
35. J. Redmon, S. Divvala, R. Girshick, and A. Farhadi. You only look once: Unified, real-time object detection. In CVPR, 2016.
36. J. Redmon and A. Farhadi. Yolo9000: Better, faster, stronger. In CVPR, 2017.
37. S. Ren, K. He, R. Girshick, and J. Sun. Faster r-cnn: Towards real-time object detection with region proposal networks. In NIPS, 2015.
38. Z. Ren and E. B. Sudderth. Three-dimensional object detection and layout prediction using clouds of oriented gradients. In CVPR, 2016.
39. G. Riegler, A. O. Ulusoy, and A. Geiger. Octnet: Learning deep 3d representations at high resolutions. In CVPR, 2017.
40. N. Silberman, D. Hoiem, P. Kohli, and R. Fergus. Indoor segmentation and support inference from rgb-d images. ECCV, 2012.
41. E. Simo-Serra, E. Trulls, L. Ferraz, I. Kokkinos, P. Fua, and F. Moreno-Noguer. Discriminative learning of deep convolutional feature point descriptors. In ICCV, 2015.
42. S. Song and J. Xiao. Sliding shapes for 3d object detection in depth images. In ECCV, 2014.
43. S. Song and J. Xiao. Deep Sliding Shapes for amodal 3D object detection in RGB-D images. In CVPR, 2016.
44. S. Song, F. Yu, A. Zeng, A. X. Chang, M. Savva, and T. Funkhouser. Semantic scene completion from a single depth image. arXiv preprint arXiv:1611.08974, 2016.
45. M. Tatarchenko, A. Dosovitskiy, and T. Brox. Octree generating networks: Efficient convolutional architectures for high-resolution 3d outputs. In ICCV, 2017.
46. P.-S. Wang, Y. Liu, Y.-X. Guo, C.-Y. Sun, and X. Tong. O-cnn: Octree-based convolutional neural networks for 3d shape analysis. ACM Transactions on Graphics (TOG), 2017.
47. W. Wang, Q. Huang, S. You, C. Yang, and U. Neumann. Shape inpainting using 3d generative adversarial network and recurrent convolutional networks. In ICCV, 2017.

48. K. Q. Weinberger and L. K. Saul. Distance metric learning for large margin nearest neighbor classification. Journal of Machine Learning Research, 2009.

49. Z. Wu, S. Song, A. Khosla, F. Yu, L. Zhang, X. Tang, and J. Xiao. 3d shapenets: A deep representation for volumetric shapes. In CVPR, 2015.

50. D. Yi, Z. Lei, S. Liao, and S. Z. Li. Deep metric learning for person re-identification. In ICPR, 2014.

51. L. Yi, V. G. Kim, D. Ceylan, I. Shen, M. Yan, H. Su, A. Lu, Q. Huang, A. Sheffer, L. Guibas, et al. A scalable active framework for region annotation in 3d shape collections. ACM Transactions on Graphics (TOG), 2016.