

# Dataset:

## Salient object detection

2020-CVPR-CoSOD <http://mftp.mmcheng.net/Papers/20CvprCoSalBenchmark.pdf>

2020-JSTSP-360SOD <https://ieeexplore-ieee-org.rproxy.insa-rennes.fr/document/8926489>

2019-WACV-SESIV <https://arxiv.org/abs/1807.01452>

2019-ACM-MM-RVSOD <https://dl.acm.org/doi/10.1145/3343031.3350882>

2019-CVPR-DAVSOD

2018-CVPR-PASCAL-S-Rank <https://arxiv.org/pdf/1803.05082.pdf>

2018-TIP-VOS

2018-ECCV-SOC

## Saliency prediction

2020-TMM-ViewportDependentSalPredict

2019-TPAMI-DHP (Mai XU, et.al.)

2019-arXiv-DAVE <https://arxiv.org/abs/1905.10693>  
(<https://hrtavakoli.github.io/AVE/>)  
(<https://dl.acm.org/doi/abs/10.1145/3379156.3391337>)

2019-CVPR-SVS <https://ieeexplore.ieee.org/document/8953191>

2018-NIPS-SpatialAudioSaliency360 <https://pedro-morgado.github.io/spatialaudiogen/>

2018-CVPR-DHF1K

2018-Salient!360 image/video

2018-ECCV-360Saliency

2018-CVPR-VR-Scene

2018-CVPR-wild360 <https://arxiv.org/abs/1806.01320>

2017-TVCG-Stanford360

## Object detection/segmentation

2020-CVPR(oral)-MultiLabel <https://arxiv.org/pdf/2005.08455.pdf>

2020-ECCV(submitting)-TransparentObj <https://arxiv.org/abs/2003.13948>

2020-ECCV(submitting)-ObjNet-Dataset

2020-arXiv-UnderWater <https://arxiv.org/abs/2004.01241>

2020-arXiv-IDDA <https://arxiv.org/abs/2004.08298>

2019-arXiv-Indoor360 <https://arxiv.org/abs/1910.06138>

2019-arXiv-DADA <https://arxiv.org/abs/1912.12148>

2018-youtubeVOS <https://youtube-vos.org/>

2018-IJCV-ADE20K <http://groups.csail.mit.edu/vision/datasets/ADE20K/>

2018-arXiv-CrowdHuman <https://arxiv.org/abs/1805.00123>

2017-CVPR-CityPerson <https://ieeexplore.ieee.org/document/8099957>

2016-CVPR-DAVIS <https://davischallenge.org/davis2017/code.html>

## **Visual sound**

2020-ICASSP-VGGSound <http://www.robots.ox.ac.uk/~vgg/data/vggsound/>

2020-ICRA-LookListenAct <http://avn.csail.mit.edu/>

2019-CVPR(oral)-2.5DVisualSound [http://vision.cs.utexas.edu/projects/2.5D\\_visual\\_sound/](http://vision.cs.utexas.edu/projects/2.5D_visual_sound/)

## **Causal/reasoning**

2020-ICLR(oral/spotlight)-CLEVRER <https://arxiv.org/abs/1910.01442>

## **Other-360-related**

2020-CVPR-Depth360Indoor [https://svip-lab.github.io/dataset/indoor\\_360.html](https://svip-lab.github.io/dataset/indoor_360.html)

2020-TPAMI-OmniStereoMatch <https://ieeexplore-ieee-org.rproxy.insa-rennes.fr/document/9086445>

2018-ECCV-SnapAngle360 <https://arxiv.org/abs/1804.00126>

2018-ACM-MM-VQA-OD <https://arxiv.org/abs/1807.10990>

2017-CVPR(oral)-sports360 <https://arxiv.org/abs/1705.01759>

2016-CVPR-S3DIS <http://buildingparser.stanford.edu/dataset.html>

## **Other-related:**

2020-CVPR(666)-FineGym <https://sdolivia.github.io/FineGym/>

2020-CVPR(oral)-SKU110K <http://chongyangma.com/publications/index.html>

2020-CVPR(oral)-camouflageObj

2020-ECCV(submitting)-Holopix50K <https://leiainc.github.io/holopix50k/>

2020-arXiv-objQA <https://arxiv.org/pdf/2005.13116.pdf>

## **Model:**

### **Salient object detection**

2020-arXiv-multiTask <https://arxiv.org/abs/2004.08595>

2020-AAAI-GCPANet <https://arxiv.org/abs/2003.00651>

2019-CVPR-CPD

2019-CVPR-BASNet

2019-ICCV-SCRN

2019-ICCV-EGNet

2019-CVPR-PoolNet

2018-CVPR-ASNet

### **Saliency prediction / VQA**

2020-AAAI-UVANet <https://www.aaai.org/Papers/AAAI/2020GB/AAAI-FuK.2375.pdf>

2020-TIP-SKD <https://ieeexplore-ieee-org.rproxy.insa-rennes.fr/document/8868103/>

2019-ICCV-TASED-Net

2019-CVPR(oral)-VCNN(Mai Xu, et.al.)

2019-BMVC-SaleMA <https://arxiv.org/abs/1907.01869>

2019-TMM-360SalMapPredict <https://ieeexplore.ieee.org/document/8931644>

2019-TMM-360Trajectory <https://ieeexplore.ieee.org/document/8676384>

2018-TCSVT-SMSP <https://ieeexplore-ieee-org.rproxy.insa-rennes.fr/document/8374803/>

2018-ICMEw-salGan360

2018-TMM-VideoSalGraph <https://ieeexplore.ieee.org/abstract/document/8705313>

2013-TMM-MultiModalSaliency <https://ieeexplore.ieee.org/document/6527322>

## **RGB-D**

2020-CVPR(oral)-UCNet

2020-CVPR-JL-DCF

2020-ICRA- 360SD-Net <https://arxiv.org/abs/1911.04460>

## **3D reconstruction**

2020-CVPR(oral)-2D/3D <https://arxiv.org/abs/2004.04180>

2020-arXiv-HDDNet <https://arxiv.org/abs/2005.05777>

## **Object detection/segmentation**

2020-arXiv-SemiSupervisedVideoSeg <https://arxiv.org/abs/2005.10266>

2020-arXiv-SemanticSeg <https://arxiv.org/abs/2005.10821v1>

2020-CVPR(oral)-ATSS <https://arxiv.org/abs/1912.02424>

2020-CVPR(oral)-SceneDeOcclusion <https://arxiv.org/abs/2004.02788>

2020-CVPR-BlendMask <https://arxiv.org/abs/2001.00309>

2020-CVPR-CrowdDetection <https://arxiv.org/abs/2003.09163>

2020-CVPR-ContextPriorSeg <https://arxiv.org/abs/2004.01547>

2020-arXiv- BiLingUNet <https://arxiv.org/abs/2003.12739>

2019-CVPR-PanoSeg <https://arxiv.org/abs/1801.00868>

2019-CVPR-ExtremeNet

2019-CVPR-DELSE

2019-ISNN-GraphFCN [https://link.springer.com/chapter/10.1007/978-3-030-22796-8\\_11](https://link.springer.com/chapter/10.1007/978-3-030-22796-8_11)

2018-CVPR-DEXTR

2018-CVPR-PANet <https://arxiv.org/abs/1803.01534>

2018-ICPR-objDetect360 <https://ieeexplore.ieee.org/document/8546070>

## **Video processing**

2020-CVPR-MEGA <https://arxiv.org/pdf/2003.12063.pdf>

2020-CVPR-Flow2Stereo <https://arxiv.org/abs/2004.02138>

2020-CVPR-HomographyEstimate <https://arxiv.org/abs/2004.02132>

2020-CVPR-MovSceneSeg <https://arxiv.org/abs/2004.02678>

2020-CVPR-TDNet <https://arxiv.org/abs/2004.01800>

2019-ICCV-SlowFast

[http://openaccess.thecvf.com/content\\_ICCV\\_2019/papers/Feichtenhofer\\_SlowFast\\_Networks\\_for\\_Video\\_Recognition\\_ICCV\\_2019\\_paper.pdf](http://openaccess.thecvf.com/content_ICCV_2019/papers/Feichtenhofer_SlowFast_Networks_for_Video_Recognition_ICCV_2019_paper.pdf)

## **Visual sound**

2020-CVPR-ListenToLook [http://vision.cs.utexas.edu/projects/listen\\_to\\_look/](http://vision.cs.utexas.edu/projects/listen_to_look/)

2020-ACL-VSLNet <https://arxiv.org/abs/2004.13931>

2020-WACV-AlignNet <https://jianrenw.github.io/AlignNet/>

2020-ECCV(submitting)-(LucVanGool, et al.) <https://arxiv.org/abs/2003.04210>

2019-ICCV-SeparateSoundOfObjects <http://vision.cs.utexas.edu/projects/coseparation/>

2019-ICCV-SoundOfMotions <https://arxiv.org/abs/1904.05979>

2019-ICCV-SoundTrack <http://sound-track.csail.mit.edu/>

2019-ICASSP-AudioVisualCoSeg <https://arxiv.org/abs/1904.09013>

2018-ECCV-SoundPixels <http://sound-of-pixels.csail.mit.edu/>

2018-ECCV-ObjSound <https://arxiv.org/abs/1712.06651>

2018-CVPR-UnsupervisedLocalizeSound <https://arxiv.org/abs/1803.03849>

2018-ECCV-AudioVisualEvent

## **2D CNN plus / CNN for 360**

2020-CVPR-tangent360 <https://arxiv.org/abs/1912.09390>

2020-CVPR-SAOL <https://arxiv.org/abs/2004.07570>

2020-CVPR-SelfAttention <https://arxiv.org/abs/2004.13621>

2020-CVPR-SphericalGCN [http://www.cs.ucf.edu/~gqi/publications/CVPR2020\\_rotation.pdf](http://www.cs.ucf.edu/~gqi/publications/CVPR2020_rotation.pdf)

2020-AAAI-360ViewPortPredict <https://www.aaai.org/Papers/AAAI/2020GB/AAAI-WuC.481.pdf>

2019-ICML-gaugeEquiCNNs <https://arxiv.org/abs/1902.04615>

2019-NIPS-SphericalCNNTheory (Cohen) <http://papers.nips.cc/paper/9114-a-general-theory-of-equivariant-cnns-on-homogeneous-spaces>

2019-ICLR-SphericalCNN

2019-ICCV-Omni-SYNTHIA  
[http://openaccess.thecvf.com/content\\_ICCV\\_2019/papers/Zhang\\_Orientation-Aware\\_Semantic\\_Segmentation\\_on\\_Icosahedron\\_Spheres\\_ICCV\\_2019\\_paper.pdf](http://openaccess.thecvf.com/content_ICCV_2019/papers/Zhang_Orientation-Aware_Semantic_Segmentation_on_Icosahedron_Spheres_ICCV_2019_paper.pdf)

2019-Access-HexagonalCNN

2018-ECCV-SphereNet <http://www.cvlibs.net/publications/Coors2018ECCV.pdf>

2018-ECCV-SO(3) invarianSphericalCNN <https://arxiv.org/abs/1711.06721>

2018-ICLR(best)-SphereCNNs <https://arxiv.org/abs/1801.10130>

## **Causality in image**

2017-CVPR-ICM <https://arxiv.org/abs/1605.08179>

## **Capsule**

2019-NIPS-Stacked Capsule Autoencoders <https://arxiv.org/abs/1906.06818>

## **Face**

2020-arXiv-PWC <https://arxiv.org/abs/2005.08649>

## **Image processing**

2020-arXiv-LowLightEnhance <https://arxiv.org/abs/2005.09829v2>

## **Image Synthesis**

2020-CVPR-GroupDNet <https://arxiv.org/abs/2003.12697>

## **Loss:**

2020-CVPR-CIM/RGB-D/SOD

2020-AAAI-F3Net/SOD

## **Metric:**

### **Salient object detection**

2019-IET-ImgProcessing-MultiLevelSaliency <https://arxiv.org/abs/2003.08514>

2018-IJCAI-EnhancedMeasure

2017-ICCV-StructureMeasure

2014-CVPR-Fbw

### **Saliency prediction**

2020-CVPR-FNAUC <https://arxiv.org/abs/2002.10540>

2018-arXiv-learnedMetric <https://arxiv.org/abs/1806.10257>

### **Object detection**

2020-AAAI-SphIoU <https://www.aaai.org/Papers/AAAI/2020GB/AAAI-ZhaoPengyu.2537.pdf>

### **VQA**

2020-arXiv-StructureTextureSimilarity <https://arxiv.org/pdf/2004.07728.pdf>

### **Segmentation**

Uncertainty-based metric for brain tumor segmentation <https://arxiv.org/abs/2005.14262>

## **Review:**

2020-DeepAudioVisualLearning <https://arxiv.org/abs/2001.04758>

2020-arXiv-StereoMatch/RGB-D <https://arxiv.org/abs/2004.08566>

2020-CVM-VRsurvey <https://link.springer.com/article/10.1007/s41095-020-0162-z>

2019-arXiv-SODsurvey <https://arxiv.org/abs/1904.09146>

2019-CVM-SODsurvey <https://arxiv.org/abs/1411.5878>

2019-TPAMI-SalDeepLearning <https://arxiv.org/abs/1810.03716>

2015-COMPUTER-GRAPHICS-EyeGaze <https://dl.acm.org/doi/10.1111/cgf.12603>

## Other 360-related:

2019-ElectImg-Complexity360

<https://www.ingentaconnect.com/content/ist/ei/2019/00002019/00000012/art00010>

2010-ACM-TG-MetricAwareSpherical <https://dl.acm.org/doi/10.1145/1882261.1866175>

## Multi-modal-related:

2020-arXiv-GDT <https://arxiv.org/abs/2003.04298>

2019-NIPS-CCN <https://papers.nips.cc/paper/8804-connective-cognition-network-for-directional-visual-commonsense-reasoning>

2019-ICCV-ETATrans <https://ieeexplore.ieee.org/document/9008532>

2016-NIPS-CoAttention VQA <https://arxiv.org/abs/1606.00061>

## Multi-task-related:

2019-arXiv-12in1 <https://arxiv.org/abs/1912.02315>

2017-arXiv-an overview <https://arxiv.org/abs/1706.05098>

## Eye-tracking-related:

2020-arXiv-EventBasedTack <https://arxiv.org/abs/2004.03577>

2020-arXiv-openEDS <https://research.fb.com/programs/openeds-challenge/>

2020-TIP-GazePredict <https://pubmed.ncbi.nlm.nih.gov/32224460/>

## People-related:

Marc Eder <https://www.marceder.com/>

Taco Cohen <http://ta.co.nl/>

Ruohan Gao <https://www.cs.utexas.edu/~rhgao/>

Hang Zhao <http://people.csail.mit.edu/hangzhao/>

HanYang CV lab <http://cvlab.hanyang.ac.kr/project/omnistereo/>



Kede Ma <https://kedema.org/>

## **Other-related:**

Taco Cohen's speech (favored at YouTube)

DeepMind Self-supervision learning

2011-ACM-MM-IOC

Technical papers favored at WeChat

Cohen's company <https://www.qualcomm.com/>