
Subject Bibliography of Computer Vision

Top 20 highly cited articles:

Bay, H., Ess, A., Tuytelaars, T., & Van Gool, L. (2008). Speeded-up robust features (SURF). *Computer Vision and Image Understanding*, 110(3), 346-359. doi:10.1016/j.cviu.2007.09.014

Belhumeur, P. N., Hespanha, J. P., & Kriegman, D. J. (1997). Eigenfaces vs. fisherfaces: Recognition using class specific linear projection. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 19(7), 711-720. doi:10.1109/34.598228

Besl, P. J., & McKay, N. D. (1992). A method for registration of 3-D shapes. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 14(2), 239-256. doi:10.1109/34.121791

Dalal, N., & Triggs, B. (2005). Histograms of oriented gradients for human detection. Paper presented at the *Proceedings - 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition, CVPR 2005*, , I 886-893. doi:10.1109/CVPR.2005.177

Girshick, R. (2015). Fast R-CNN. Paper presented at the *Proceedings of the IEEE International Conference on Computer Vision, , 2015 International Conference on Computer Vision, ICCV 2015* 1440-1448. doi:10.1109/ICCV.2015.169

He, K., Gkioxari, G., Dollár, P., & Girshick, R. (2017). Mask R-CNN. Paper presented at the *Proceedings of the IEEE International Conference on Computer Vision, , 2017-October* 2980-2988. doi:10.1109/ICCV.2017.322

He, K., Zhang, X., Ren, S., & Sun, J. (2016). Deep residual learning for image recognition. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, , 2016-December* 770-778. doi:10.1109/CVPR.2016.90

He, K., Zhang, X., Ren, S., & Sun, J. (2015). Delving deep into rectifiers: Surpassing human-level performance on imagenet classification. Paper presented at the *Proceedings of the IEEE International Conference on Computer Vision, , 2015 International Conference on Computer Vision, ICCV 2015* 1026-1034. doi:10.1109/ICCV.2015.123

Huang, G., Liu, Z., Van Der Maaten, L., & Weinberger, K. Q. (2017). Densely connected convolutional networks. Paper presented at the *Proceedings - 30th IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2017, , 2017-January* 2261-2269. doi:10.1109/CVPR.2017.243

Itti, L., Koch, C., & Niebur, E. (1998). A model of saliency-based visual attention for rapid scene analysis. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 20(11), 1254-1259. doi:10.1109/34.730558

Lin, T. -, Dollár, P., Girshick, R., He, K., Hariharan, B., & Belongie, S. (2017). Feature pyramid networks for object detection. Paper presented at the *Proceedings - 30th IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2017, , 2017-January* 936-944. doi:10.1109/CVPR.2017.106

Liu, W., Anguelov, D., Erhan, D., Szegedy, C., Reed, S., Fu, C. -, & Berg, A. C. (2016). SSD: *Single shot multibox detector* doi:10.1007/978-3-319-46448-0_2

Long, J., Shelhamer, E., & Darrell, T. (2015). Fully convolutional networks for semantic segmentation. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, , 07-12-June-2015* 431-440. doi:10.1109/CVPR.2015.7298965

Redmon, J., Divvala, S., Girshick, R., & Farhadi, A. (2016). You only look once: Unified, real-time object detection. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, , 2016-December* 779-788. doi:10.1109/CVPR.2016.91

Russakovsky, O., Deng, J., Su, H., Krause, J., Satheesh, S., Ma, S., . . . Fei-Fei, L. (2015).

ImageNet large scale visual recognition challenge. *International Journal of Computer Vision*, 115(3), 211-252. doi:10.1007/s11263-015-0816-y

Shi, J., & Malik, J. (2000). Normalized cuts and image segmentation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 22(8), 888-905. doi:10.1109/34.868688

Simonyan, K., & Zisserman, A. (2015). Very deep convolutional networks for large-scale image recognition. Paper presented at the *3rd International Conference on Learning Representations, ICLR 2015 - Conference Track Proceedings*

Szegedy, C., Liu, W., Jia, Y., Sermanet, P., Reed, S., Anguelov, D., . . . Rabinovich, A. (2015). Going deeper with convolutions. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, , 07-12-June-2015* 1-9. doi:10.1109/CVPR.2015.7298594

Szegedy, C., Vanhoucke, V., Ioffe, S., Shlens, J., & Wojna, Z. (2016). Rethinking the inception architecture for computer vision. Paper presented at the *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, , 2016-December* 2818-2826. doi:10.1109/CVPR.2016.308

Zhang, Z. (2000). A flexible new technique for camera calibration. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 22(11), 1330-1334. doi:10.1109/34.888718

Top 20 highly cited gold open access articles:

Akhtar, N., & Mian, A. (2018). Threat of adversarial attacks on deep learning in computer vision: A survey. *IEEE Access*, 6, 14410-14430. doi:10.1109/ACCESS.2018.2807385

Alom, M. Z., Taha, T. M., Yakopcic, C., Westberg, S., Sidike, P., Nasrin, M. S., . . . Asari, V. K. (2019). A state-of-the-art survey on deep learning theory and architectures. *Electronics (Switzerland)*, 8(3) doi:10.3390/electronics8030292

- Arbabi, A., Arbabi, E., Kamali, S. M., Horie, Y., Han, S., & Faraon, A. (2016). Miniature optical planar camera based on a wide-angle metasurface doublet corrected for monochromatic aberrations. *Nature Communications*, 7 doi:10.1038/ncomms13682
- Atzori, M., Cognolato, M., & Müller, H. (2016). Deep learning with convolutional neural networks applied to electromyography data: A resource for the classification of movements for prosthetic hands. *Frontiers in Neurobotics*, 10(SEP) doi:10.3389/fnbot.2016.00009
- Chen, X. -, & Lin, X. (2014). Big data deep learning: Challenges and perspectives. *IEEE Access*, 2, 514-525. doi:10.1109/ACCESS.2014.2325029
- Erdem, E., & Erdem, A. (2013). Visual saliency estimation by nonlinearly integrating features using region covariances. *Journal of Vision*, 13(4) doi:10.1167/13.4.11
- Harwin, S., & Lucieer, A. (2012). Assessing the accuracy of georeferenced point clouds produced via multi-view stereopsis from unmanned aerial vehicle (UAV) imagery. *Remote Sensing*, 4(6), 1573-1599. doi:10.3390/rs4061573
- Howard, J., & Gugger, S. (2020). Fastai: A layered api for deep learning. *Information (Switzerland)*, 11(2) doi:10.3390/info11020108
- Jiao, L., Zhang, F., Liu, F., Yang, S., Li, L., Feng, Z., & Qu, R. (2019). A survey of deep learning-based object detection. *IEEE Access*, 7, 128837-128868. doi:10.1109/ACCESS.2019.2939201
- Johnson, J. M., & Khoshgoftaar, T. M. (2019). Survey on deep learning with class imbalance. *Journal of Big Data*, 6(1) doi:10.1186/s40537-019-0192-5
- Khaligh-Razavi, S. -, & Kriegeskorte, N. (2014). Deep supervised, but not unsupervised, models may explain IT cortical representation. *PLoS Computational Biology*, 10(11) doi:10.1371/journal.pcbi.1003915
- Lapuschkin, S., Wäldchen, S., Binder, A., Montavon, G., Samek, W., & Müller, K. -. (2019). Unmasking clever hans predictors and assessing what machines really learn. *Nature Communications*, 10(1) doi:10.1038/s41467-019-08987-4

- Mohanty, S. P., Hughes, D. P., & Salathé, M. (2016). Using deep learning for image-based plant disease detection. *Frontiers in Plant Science*, 7(September) doi:10.3389/fpls.2016.01419
- Saltz, J., Gupta, R., Hou, L., Kurc, T., Singh, P., Nguyen, V., . . . Thorsson, V. (2018). Spatial organization and molecular correlation of tumor-infiltrating lymphocytes using deep learning on pathology images. *Cell Reports*, 23(1), 181-193.e7. doi:10.1016/j.celrep.2018.03.086
- Shorten, C., & Khoshgoftaar, T. M. (2019). A survey on image data augmentation for deep learning. *Journal of Big Data*, 6(1) doi:10.1186/s40537-019-0197-0
- Spencer, B. F., Hoskere, V., & Narazaki, Y. (2019). Advances in computer vision-based civil infrastructure inspection and monitoring. *Engineering*, 5(2), 199-222. doi:10.1016/j.eng.2018.11.030
- Voulodimos, A., Doulamis, N., Doulamis, A., & Protopapadakis, E. (2018). Deep learning for computer vision: A brief review. *Computational Intelligence and Neuroscience*, 2018 doi:10.1155/2018/7068349
- Wang, G., Sun, Y., & Wang, J. (2017). Automatic image-based plant disease severity estimation using deep learning. *Computational Intelligence and Neuroscience*, 2017 doi:10.1155/2017/2917536
- Yamashita, R., Nishio, M., Do, R. K. G., & Togashi, K. (2018). Convolutional neural networks: An overview and application in radiology. *Insights into Imaging*, 9(4), 611-629. doi:10.1007/s13244-018-0639-9
- Zhang, Z., Xu, Y., Yang, J., Li, X., & Zhang, D. (2015). A survey of sparse representation: Algorithms and applications. *IEEE Access*, 3, 490-530. doi:10.1109/ACCESS.2015.2430359

Top 10 recent books added in collection:

- Andrad, Juan. A Survey of Blur Detection and Sharpness Assessment Methods. Vol. 20.;20; Morgan & Claypool Publishers, 2021

Azimi, Shiva. Computer Vision Based Plant Phenotyping. Department of Electrical Engineering, IITD, 2021

Bourlai, Thirimachos, et al. Securing Social Identity in Mobile Platforms: Technologies for Security, Privacy and Identity Management. Springer International Publishing, 2020

Dabrowski, Joel Janek, et al. Image and Video Technology: PSIVT 2019 International Workshops, Sydney, NSW, Australia, November 18-22, 2019, Revised Selected Papers. Vol. 11994, Springer International Publishing, 2020

Kanatani, Ken'ichi. Linear Algebra for Pattern Processing: Projection, Singular Value Decomposition, and Pseudoinverse. Vol. 21;21.; Morgan & Claypool Publishers, 2021

Ma, Yao, and Jiliang Tang. Deep Learning on Graphs. Cambridge University Press, 2021

Rojas, Ignacio, et al. Bioinformatics and Biomedical Engineering: 8th International Work-Conference, IWBBIO 2020, Granada, Spain, May 6-8, 2020, Proceedings. Vol. 12108, Springer International Publishing, 2020

Singh, Richa, et al. Domain Adaptation for Visual Understanding. Springer International Publishing, 2020

Singhal, Ankit. Computer Vision Based Deep Learning to Predict Precursor Mirna in Human Genome. Amar Nath and Shashi Khosla School of Information Technology, IITD, 2021

Yang, Cheng (Ph.D.), et al. Network Embedding: Theories, Methods, and Applications. Vol. 48;48.; Morgan & Claypool Publishers, 2021