

REFERENCES

- [1] S. M. Teutsch, M. A. McCoy, R. B. Woodbury, and A. Welp, Eds., *Making Eye Health a Population Health Imperative: Vision for Tomorrow*. Washington, D.C.: National Academies Press, 2016. doi: 10.17226/23471.
- [2] L. M. Putri, A. Kurniawan, M. M. Mamesah, and T. N. Rochmah, "The Journal of Management Information and Health Technology".
- [3] T. Wang and Q. Dai, "SURVS: A Swin-Unet and game theory-based unsupervised segmentation method for retinal vessel," *Comput. Biol. Med.*, vol. 166, p. 107542, Nov. 2023, doi: 10.1016/j.combiomed.2023.107542.
- [4] W. Ding *et al.*, "RCAR-UNet: Retinal vessel segmentation network algorithm via novel rough attention mechanism," *Inf. Sci.*, vol. 657, p. 120007, Feb. 2024, doi: 10.1016/j.ins.2023.120007.
- [5] X. Liu, D. Zhang, J. Yao, and J. Tang, "Transformer and convolutional based dual branch network for retinal vessel segmentation in OCTA images," *Biomed. Signal Process. Control*, vol. 83, p. 104604, May 2023, doi: 10.1016/j.bspc.2023.104604.
- [6] Y. Zhang and A. C. S. Chung, "Deep supervision with additional labels for retinal vessel segmentation task," vol. 11071, 2018, pp. 83–91. doi: 10.1007/978-3-030-00934-2_10.
- [7] B. Sheng *et al.*, "Retinal Vessel Segmentation Using Minimum Spanning Superpixel Tree Detector," *IEEE Trans. Cybern.*, vol. 49, no. 7, pp. 2707–2719, Jul. 2019, doi: 10.1109/TCYB.2018.2833963.
- [8] Y. Ma *et al.*, "ROSE: A Retinal OCT-Angiography Vessel Segmentation Dataset and New Model," *IEEE Trans. Med. Imaging*, vol. 40, no. 3, pp. 928–939, Mar. 2021, doi: 10.1109/TMI.2020.3042802.
- [9] Y. Tan, K.-F. Yang, S.-X. Zhao, and Y.-J. Li, "Retinal Vessel Segmentation With Skeletal Prior and Contrastive Loss," *IEEE Trans. Med. Imaging*, vol. 41, no. 9, pp. 2238–2251, Sep. 2022, doi: 10.1109/TMI.2022.3161681.
- [10] J. Ryu, M. U. Rehman, I. F. Nizami, and K. T. Chong, "SegR-Net: A deep learning framework with multi-scale feature fusion for robust retinal vessel segmentation," *Comput. Biol. Med.*, vol. 163, p. 107132, Sep. 2023, doi: 10.1016/j.combiomed.2023.107132.
- [11] M. Jiang, Y. Zhu, and X. Zhang, "CoVi-Net: A hybrid convolutional and vision transformer neural network for retinal vessel segmentation," *Comput. Biol. Med.*, vol. 170, p. 108047, Mar. 2024, doi: 10.1016/j.combiomed.2024.108047.
- [12] H. Lu, Y. Zhang, Y. Li, C. Jiang, and H. Abbas, "User-Oriented Virtual Mobile Network Resource Management for Vehicle Communications," *IEEE Trans. Intell. Transp. Syst.*, vol. 22, no. 6, pp. 3521–3532, Jun. 2021, doi: 10.1109/TITS.2020.2991766.
- [13] H. Lu, M. Zhang, X. Xu, Y. Li, and H. T. Shen, "Deep Fuzzy Hashing Network for Efficient Image Retrieval," *IEEE Trans. Fuzzy Syst.*, vol. 29, no. 1, pp. 166–176, Jan. 2021, doi: 10.1109/TFUZZ.2020.2984991.
- [14] C. Ma *et al.*, "Visual information processing for deep-sea visual monitoring system," *Cogn. Robot.*, vol. 1, pp. 3–11, Jan. 2021, doi: 10.1016/j.cogr.2020.12.002.
- [15] R. Girshick, J. Donahue, T. Darrell, and J. Malik, "Rich Feature Hierarchies for Accurate Object Detection and Semantic Segmentation," presented at the Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, 2014, pp. 580–587. Accessed: Apr. 04, 2024. [Online]. Available: https://openaccess.thecvf.com/content_cvpr_2014/html/Girshick_Rich_Feature_Hierarchies_2014_CVPR_paper.html
- [16] A. Krizhevsky, I. Sutskever, and G. E. Hinton, "ImageNet Classification with Deep Convolutional Neural Networks," in *Advances in Neural Information Processing Systems*, Curran Associates, Inc., 2012. Accessed: Apr. 04, 2024. [Online]. Available: <https://proceedings.neurips.cc/paper/2012/hash/c399862d3b9d6b76c8436e924a68c45b-Abstract.html>
- [17] O. Ronneberger, P. Fischer, and T. Brox, "U-Net: Convolutional Networks for Biomedical Image Segmentation," May 18, 2015, *arXiv*: arXiv:1505.04597. Accessed: Apr. 04, 2024. [Online]. Available: <http://arxiv.org/abs/1505.04597>
- [18] M. Z. Alom, M. Hasan, C. Yakopcic, T. M. Taha, and V. K. Asari, "Recurrent Residual Convolutional Neural Network based on U-Net (R2U-Net) for Medical Image Segmentation," May 29, 2018, *arXiv*: arXiv:1802.06955. doi: 10.48550/arXiv.1802.06955.
- [19] O. Oktay *et al.*, "Attention U-Net: Learning Where to Look for the Pancreas," May 20, 2018, *arXiv*: arXiv:1804.03999. doi: 10.48550/arXiv.1804.03999.
- [20] Q. Zuo, S. Chen, and Z. Wang, "R2AU-Net: Attention Recurrent Residual Convolutional Neural Network for Multimodal Medical Image Segmentation," *Secur. Commun. Netw.*, vol. 2021, pp. 1–10, Jun. 2021, doi: 10.1155/2021/6625688.
- [21] M. Liu, Y. Wang, L. Wang, S. Hu, X. Wang, and Q. Ge, "IMFF-Net: An integrated multi-scale feature fusion network for accurate retinal vessel segmentation from fundus images," *Biomed. Signal Process. Control*, vol. 91, p. 105980, May 2024, doi: 10.1016/j.bspc.2024.105980.
- [22] Z. Ma and X. Li, "An improved supervised and attention mechanism-based U-Net algorithm for retinal vessel segmentation," *Comput. Biol. Med.*, vol. 168, p. 107770, Jan. 2024, doi: 10.1016/j.combiomed.2023.107770.
- [23] S. Suyanto, A. A. Ariyanto, and A. F. Ariyanto, "Komodo Mlipir Algorithm," *Appl. Soft Comput.*, vol. 114, p. 108043, Jan. 2022, doi: 10.1016/j.asoc.2021.108043.
- [24] V. Nurdinawati, A. Hendryani, and T. Barasabha, "Segmentasi Citra Pembuluh Darah Retina Menggunakan Operasi Morfologi Iteratif," *J. Tek. Elektro*, vol. 13, no. 1, pp. 18–24, Jun. 2021, doi: 10.15294/jte.v13i1.29747.
- [25] A. Galdran, A. Anjos, J. Dolz, H. Chakor, H. Lombaert, and I. B. Ayed, "State-of-the-art retinal vessel segmentation with minimalist models," *Sci. Rep.*, vol. 12, no. 1, p. 6174, Apr. 2022, doi: 10.1038/s41598-022-09675-y.
- [26] R. J. Chalakkal, W. H. Abdulla, and S. Sinumol, "Comparative Analysis of University of Auckland Diabetic Retinopathy Database," in *Proceedings of the 9th International Conference on Signal Processing Systems*, in ICSPS 2017. New York, NY, USA: Association for Computing Machinery, Nov. 2017, pp. 235–239. doi: 10.1145/3163080.3163087.
- [27] J. I. Orlando, J. Barbosa Breda, K. van Keer, M. B. Blaschko, P. J. Blanco, and C. A. Bulant, "Towards a Glaucoma Risk Index Based on Simulated Hemodynamics from Fundus Images," in *Medical Image Computing and Computer Assisted Intervention – MICCAI 2018*, A. F. Frangi, J. A. Schnabel, C. Davatzikos, C. Alberola-López, and G. Fichtinger, Eds., Cham: Springer International Publishing, 2018, pp. 65–73. doi: 10.1007/978-3-030-00934-2_8.
- [28] R. A. Welikala *et al.*, "Automated retinal image quality assessment on the UK Biobank dataset for epidemiological studies," *Comput. Biol. Med.*, vol. 71, pp. 67–76, Apr. 2016, doi: 10.1016/j.combiomed.2016.01.027.
- [29] P. Costa *et al.*, "End-to-End Adversarial Retinal Image Synthesis," *IEEE Trans. Med. Imaging*, vol. 37, no. 3, pp. 781–791, Mar. 2018, doi: 10.1109/TMI.2017.2759102.
- [30] A. Imran, J. Li, Y. Pei, J.-J. Yang, and Q. Wang, "Comparative Analysis of Vessel Segmentation Techniques in Retinal Images," *IEEE Access*, vol. 7, pp. 114862–114887, 2019, doi: 10.1109/ACCESS.2019.2935912.
- [31] H. Abdushkour *et al.*, "Enhancing fine retinal vessel segmentation: Morphological reconstruction and double thresholds filtering strategy," *PLOS ONE*, vol. 18, no. 7, p. e0288792, Jul. 2023, doi: 10.1371/journal.pone.0288792.
- [32] Z. Yan, X. Yang, and K.-T. Cheng, "A Three-Stage Deep Learning Model for Accurate Retinal Vessel Segmentation," *IEEE J. Biomed. Health Inform.*, vol. 23, no. 4, pp. 1427–1436, Jul. 2019, doi: 10.1109/JBHI.2018.2872813.
- [33] "Retinal image database | Retinal Image Analysis." Accessed: May 13, 2024. [Online]. Available: <https://blogs.kingston.ac.uk/retinal/chasedb1/>
- [34] S. Guo, K. Wang, K. Hong, Y. Zhang, and T. Li, "BTS-DSN: Deeply Supervised Neural Network with Short Connections for Retinal Vessel Segmentation," *Int. J. Med. Inf.*, vol. 126, Apr. 2019, doi: 10.1016/j.ijmedinf.2019.03.015.
- [35] K. Wang, X. Zhang, S. Huang, W. Qiuli, and F. Chen, "CTF-Net: Retinal Vessel Segmentation via Deep Coarse-To-Fine Supervision Network," Apr. 2020, pp. 1237–1241. doi: 10.1109/ISBI45749.2020.9098742.
- [36] T. M. Khan, M. Alhussein, K. Aurangzeb, M. Arsalan, S. S. Naqvi, and S. J. Nawaz, "Residual Connection-Based Encoder Decoder Network (RCED-Net) for Retinal Vessel Segmentation," Jan. 2020, doi: 10.1109/ACCESS.2020.3008899.
- [37] B. Wang, W. Shengpei, S. Qiu, W. Wei, H. Wang, and H. He, "CSU-Net: A Context Spatial U-Net for Accurate Blood Vessel Segmentation in Fundus Images," *IEEE J. Biomed. Health Inform.*, vol. PP, pp. 1–1, Jul. 2020, doi: 10.1109/JBHI.2020.3011178.
- [38] Y. Lei, H. Wang, Q. Zeng, Y. Liu, and G. Bian, "A Hybrid Deep Segmentation Network for Fundus Vessels via Deep-Learning

- Framework,” *Neurocomputing*, vol. 448, Mar. 2021, doi: 10.1016/j.neucom.2021.03.085.
- [39] X. Zhong, H. Zhang, G. Li, and D. Ji, “Do you need sharpened details? Asking MMDC-Net: Multi-layer multi-scale dilated convolution network for retinal vessel segmentation,” *Comput. Biol. Med.*, vol. 150, p. 106198, Nov. 2022, doi: 10.1016/j.compbioimed.2022.106198.
- [40] “DEF-Net: A Dual-Encoder Fusion Network for Fundus Retinal Vessel Segmentation.” Accessed: Nov. 08, 2024. [Online]. Available: <https://www.mdpi.com/2079-9292/11/22/3810>
- [41] X. Wei, K. Yang, D. Bzdok, and Y. Li, “Orientation and Context Entangled Network for Retinal Vessel Segmentation,” *Expert Syst. Appl.*, vol. 217, p. 119443, May 2023, doi: 10.1016/j.eswa.2022.119443.
- [42] Y. Liu, J. Shen, L. Yang, H. Yu, and G. Bian, “Wave-Net: A lightweight deep network for retinal vessel segmentation from fundus images,” *Comput. Biol. Med.*, vol. 152, p. 106341, Jan. 2023, doi: 10.1016/j.compbioimed.2022.106341.