

- latent representations. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, pages 2898–2906, 2019. 7, 8
- [28] Masoud Pourreza, Bahram Mohammadi, Mostafa Khaki, Samir Bouindour, Hichem Snoussi, and Mohammad Sabokrou. G2d: generate to detect anomaly. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, pages 2003–2012, 2021. 2, 8
- [29] Tal Reiss, Niv Cohen, Liron Bergman, and Yedid Hoshen. Panda: Adapting pretrained features for anomaly detection and segmentation. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 2806–2814, June 2021. 3, 4, 6
- [30] Oliver Rippel, Patrick Mertens, and Dorit Merhof. Modeling the distribution of normal data in pre-trained deep features for anomaly detection. In *2020 25th International Conference on Pattern Recognition (ICPR)*, pages 6726–6733, 2021. 3
- [31] Lukas Ruff, Robert Vandermeulen, Nico Goernitz, Lucas Deecke, Shoaib Ahmed Siddiqui, Alexander Binder, Emmanuel Müller, and Marius Kloft. Deep one-class classification. In Jennifer Dy and Andreas Krause, editors, *Proceedings of the 35th International Conference on Machine Learning*, volume 80 of *Proceedings of Machine Learning Research*, pages 4393–4402. PMLR, 10–15 Jul 2018. 2
- [32] Mohammadreza Salehi, Hossein Mirzaei, Dan Hendrycks, Yixuan Li, Mohammad Hossein Rohban, and Mohammad Sabokrou. A unified survey on anomaly, novelty, open-set, and out-of-distribution detection: Solutions and future challenges. *arXiv preprint arXiv:2110.14051*, 2021. 7
- [33] Mohammadreza Salehi, Niousha Sadjadi, Soroosh Baselizadeh, Mohammad H. Rohban, and Hamid R. Rabiee. Multiresolution knowledge distillation for anomaly detection. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 14902–14912, June 2021. 1, 2, 3, 6, 7, 8
- [34] Thomas Schlegl, Philipp Seeböck, Sebastian M. Waldstein, Georg Langs, and Ursula Schmidt-Erfurth. f-anogan: Fast unsupervised anomaly detection with generative adversarial networks. *Medical Image Analysis*, 54:30–44, 2019. 1, 2
- [35] Bernhard Schölkopf, John C Platt, John Shawe-Taylor, Alex J Smola, and Robert C Williamson. Estimating the support of a high-dimensional distribution. *Neural computation*, 13(7):1443–1471, 2001. 2
- [36] David MJ Tax and Robert PW Duin. Support vector data description. *Machine learning*, 54(1):45–66, 2004. 2
- [37] Frederick Tung and Greg Mori. Similarity-preserving knowledge distillation. In *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, October 2019. 4
- [38] Shashanka Venkataramanan, Kuan-Chuan Peng, Rajat Vikram Singh, and Abhijit Mahalanobis. Attention guided anomaly localization in images. In *European Conference on Computer Vision*, pages 485–503. Springer, 2020. 1
- [39] Guodong Wang, Shumin Han, Errui Ding, and Di Huang. Student-teacher feature pyramid matching for anomaly detection, 2021. 1, 3
- [40] Jhih-Ciang Wu, Ding-Jie Chen, Chiou-Shann Fuh, and Tyng-Luh Liu. Learning unsupervised metaformer for anomaly detection. In *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, pages 4369–4378, October 2021. 2, 6, 7
- [41] Han Xiao, Kashif Rasul, and Roland Vollgraf. Fashion-mnist: a novel image dataset for benchmarking machine learning algorithms, 2017. 7
- [42] Xudong Yan, Huaidong Zhang, Xuemiao Xu, Xiaowei Hu, and Pheng-Ann Heng. Learning semantic context from normal samples for unsupervised anomaly detection. *Proceedings of the AAAI Conference on Artificial Intelligence*, 35(4):3110–3118, May 2021. 1, 2, 3
- [43] Jihun Yi and Sungroh Yoon. Patch svdd: Patch-level svdd for anomaly detection and segmentation. In *Proceedings of the Asian Conference on Computer Vision (ACCV)*, November 2020. 2, 6
- [44] Sergey Zagoruyko and Nikos Komodakis. Wide residual networks. In Edwin R. Hancock Richard C. Wilson and William A. P. Smith, editors, *Proceedings of the British Machine Vision Conference (BMVC)*, pages 87.1–87.12. BMVA Press, September 2016. 4
- [45] Muhammad Zaigham Zaheer, Jin-ha Lee, Marcella Astrid, and Seung-Ik Lee. Old is gold: Redefining the adversarially learned one-class classifier training paradigm. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, pages 14183–14193, 2020. 2, 8
- [46] Vitjan Zavrtanik, Matej Kristan, and Danijel Škočaj. Reconstruction by inpainting for visual anomaly detection. *Pattern Recognition*, 112:107706, 2021. 1, 2, 3, 6, 7
- [47] Matthew D. Zeiler, Dilip Krishnan, Graham W. Taylor, and Rob Fergus. Deconvolutional networks. In *2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, pages 2528–2535, 2010. 4
- [48] Kang Zhou, Yuting Xiao, Jianlong Yang, Jun Cheng, Wen Liu, Weixin Luo, Zaiwang Gu, Jiang Liu, and Shenghua Gao. Encoding structure-texture relation with p-net for anomaly detection in retinal images. In *Computer Vision—ECCV 2020: 16th European Conference, Glasgow, UK, August 23–28, 2020, Proceedings, Part XX 16*, pages 360–377. Springer, 2020. 1
- [49] Jinguo Zhu, Shixiang Tang, Dapeng Chen, Shijie Yu, Yakun Liu, Mingzhe Rong, Aijun Yang, and Xiaohua Wang. Complementary relation contrastive distillation. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 9260–9269, June 2021. 4
- [50] David Zimmerer, Jens Petersen, Gregor Köhler, Paul Jäger, Peter Full, Tobias Roß, Tim Adler, Annika Reinke, Lena Maier-Hein, and Klaus Maier-Hein. Medical out-of-distribution analysis challenge 2021, Mar. 2021. 1