References

[1] E. Ahmed, M. Jones, and T. K. Marks, "An improved deep learning architecture for person re-identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2015, pp. 3908–3916.

[2] A. Subramaniam, M. Chatterjee, and A. Mittal, "Deep neural networks with inexact matching for person re-identification," in *Advances in Neural Information Processing Systems*, 2016, pp. 2667–2675.

[3] W. Li, R. Zhao, T. Xiao, and X. Wang, "Deepreid: Deep filter pairing neural network for person re-identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2014, pp. 152–159.

[4] C. Slattery and Y. Shida, "Adi tof depth sensing technology: New and emerging applications in industrial, automotive markets, and more," *41 Understanding the Fundamentals of Earthquake Signal Sensing Networks*, 2019, p. 52.

[5] Y. Huang, S. Lian, H. Hu, D. Chen, and T. Su, "Multiscale omnibearing attention networks for person re-identification," *IEEE Transactions on Circuits and Systems for Video Technology*, 2020, vol. 31, no. 5, pp. 1790–1803.

[6] K. Song and Y.-S. Kim, "A person re-identification scheme using local multiscale feature embedding with dual pyramids," *Applied Sciences*, 2021, vol. 11, no. 8, p. 3363.

[7] E. Denton, S. Gross, and R. Fergus, "Semi-supervised learning with context-conditional generative adversarial networks," *arXiv preprint arXiv:1611.06430*, 2016.

[8] C. You, G. Li, Y. Zhang, X. Zhang, H. Shan, M. Li, S. Ju, Z. Zhao, Z. Zhang, W. Cong *et al.*, "Ct super-resolution gan constrained by the identical, residual, and cycle learning ensemble (gan-circle)," *IEEE transactions on medical imaging*, 2019, vol. 39, no. 1, pp. 188–203.

[9] T. Kaneko, H. Kameoka, K. Tanaka, and N. Hojo, "Cyclegan-vc2: Improved cyclegan-based non-parallel voice conversion," in *ICASSP 2019-2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, 2019, pp. 6820–6824.

[10] G. Wang, S. Yang, H. Liu, Z. Wang, Y. Yang, S. Wang, G. Yu, E. Zhou, and J. Sun, "High-order information matters: Learning relation and topology for occluded person re-identification," in *proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2020, pp. 6449–6458.

[11] J. Miao, Y. Wu, P. Liu, Y. Ding, and Y. Yang, "Pose-guided feature alignment for occluded person re-identification," in *proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 542–551.

[12] Y. Jiang, W. Chen, X. Sun, X. Shi, F. Wang, and H. Li, "Exploring the quality of gan generated images for person re-identification," in *Proceedings of the 29th ACM International Conference on Multimedia*, 2021, pp. 4146–4155.

[13] O. Javed, K. Shafique, Z. Rasheed, and M. Shah, "Modeling inter-camera space–time and appearance relationships for tracking across non-overlapping views," *Computer Vision and Image Understanding*, 2008, vol. 109, no. 2, pp. 146–162.

[14] D. Makris, T. Ellis, and J. Black, "Bridging the gaps between cameras," in *proceedings of the 2004 IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2004.*, vol. 2. IEEE, 2004, pp. II–II.

[15] R. Mazzon, S. F. Tahir, and A. Cavallaro, "Person re-identification in crowd," *Pattern Recognition Letters*, 2012, vol. 33, no. 14, pp. 1828–1837.

[16] C. C. Loy, T. Xiang, and S. Gong, "Multi-camera activity correlation analysis," in *2009 IEEE Conference on Computer Vision and Pattern Recognition*. IEEE, 2009, pp. 1988–1995.

[17] ——, "Time-delayed correlation analysis for multi-camera activity understanding," *International Journal of Computer Vision*, 2010, vol. 90, no. 1, pp. 106–129.

[18] H. Hotelling, "Relations between two sets of variates," in *Breakthroughs in statistics*. Springer, 1992, pp. 162–190.

[19] M. Lantagne, M. Parizeau, and R. Bergevin, "Vip: Vision tool for comparing images of people," in *Vision Interface*, vol. 2, 2003.

[20] U. Park, A. K. Jain, I. Kitahara, K. Kogure, and N. Hagita, "Vise: Visual search engine using multiple networked cameras," in *18th International Conference on Pattern Recognition (ICPR'06)*, vol. 3. IEEE, 2006, pp. 1204–1207.

[21] W. Hu, M. Hu, X. Zhou, T. Tan, J. Lou, and S. Maybank, "Principal axis-based correspondence between multiple cameras for people tracking," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2006, vol. 28, no. 4, pp. 663–671.

[22] D. Baltieri, R. Vezzani, R. Cucchiara, A. Utasi, C. Benedek, and T. Szirányi, "Multi-view people surveillance using 3d information," in *2011 IEEE International Conference on Computer Vision Workshops (ICCV Workshops)*. IEEE, 2011, pp. 1817–1824.

[23] J. Kang, I. Cohen, and G. Medioni, "Object reacquisition using invariant appearance model," in *Pattern Recognition, 2004. ICPR 2004. proceedings of the 17th International Conference on*, vol. 4. IEEE, 2004, pp. 759–762.

[24] N. Gheissari, T. B. Sebastian, and R. Hartley, "Person reidentification using spatiotemporal appearance," in *2006 IEEE computer society conference on computer vision and pattern recognition (CVPR'06)*, vol. 2. IEEE, 2006, pp. 1528–1535.

[25] J. Sivic, C. L. Zitnick, and R. Szeliski, "Finding people in repeated shots of the same scene." in *The British Machine Vision Conference (BMVC)*, vol. 2, 2006, p. 3.

[26] L. Bazzani, M. Cristani, A. Perina, M. Farenzena, and V. Murino, "Multiple-shot person re-identification by hpe signature," in *Pattern Recognition (ICPR), 2010 20th International Conference on*. IEEE, 2010, pp. 1413–1416.

[27] L. Bazzani, M. Cristani, and V. Murino, "Symmetry-driven accumulation of local features for human characterization and re-identification," *Computer Vision and Image Understanding*, 2013, vol. 117, no. 2, pp. 130–144.

[28] P.-E. Forssén, "Maximally stable colour regions for recognition and matching," in *Computer Vision and Pattern Recognition, 2007. CVPR'07. IEEE Conference on*. IEEE, 2007, pp. 1–8.

[29] D. S. Cheng, M. Cristani, M. Stoppa, L. Bazzani, and V. Murino, "Custom Pictorial Structures for Re-Identification," in *proceedings of The British Machine Vision Conference (BMVC)*, vol. 1, no. 2. Citeseer, 2011, p. 6.

[30] S. Bak, E. Corvee, F. Bremond, and M. Thonnat, "Person re-identification using spatial covariance regions of human body parts," in *2010 7th IEEE International Conference on Advanced Video and Signal Based Surveillance*. IEEE, 2010, pp. 435–440.

[31] R. Satta, G. Fumera, F. Roli, M. Cristani, and V. Murino, "A multiple component matching framework for person re-identification," in *International Conference on Image Analysis and Processing*. Springer, 2011, pp. 140–149.

[32] O. Hamdoun, F. Moutarde, B. Stanciulescu, and B. Steux, "Person re-identification in multi-camera system by signature based on interest point descriptors collected on short video sequences," in *2008 Second ACM/IEEE International Conference on Distributed Smart Cameras*. IEEE, 2008, pp. 1–6.

[33] A. Bedagkar-Gala and S. K. Shah, "Multiple person re-identification using part based spatio-temporal color appearance model," in *2011 IEEE International Conference on Computer Vision Workshops (ICCV Workshops)*. IEEE, 2011, pp. 1721–1728.

[34] T. F. Cootes, G. J. Edwards, and C. J. Taylor, "Active appearance models," *IEEE Transactions on pattern analysis and machine intelligence*, 2001, vol. 23, no. 6, pp. 681–685.

[35] F. Porikli, "Inter-camera color calibration by correlation model function," in *proceedings International Conference on Image Processing (ICIP 2003)*, vol. 2. IEEE, 2003, pp. II–133.

[36] B. J. Prosser, S. Gong, and T. Xiang, "Multi-camera matching using bi-directional cumulative brightness transfer functions." in *The British Machine Vision Conference (BMVC)*, vol. 8, no. 164. Citeseer, 2008, p. 74.

[37] X. Wang, G. Doretto, T. Sebastian, J. Rittscher, and P. Tu, "Shape and appearance context modeling," in *2007 ieee 11th International Conference on Computer Vision*. Ieee, 2007, pp. 1–8.

[38] N. Dalal and B. Triggs, "Histograms of oriented gradients for human detection," in *Computer Vision and Pattern Recognition, 2005. CVPR 2005. IEEE Computer Society Conference on*, vol. 1. IEEE, 2005, pp. 886–893.

[39] W.-S. Zheng, S. Gong, and T. Xiang, "Associating groups of people." in *The British Machine Vision Conference (BMVC)*, vol. 2, no. 6, 2009, pp. 1–11.

[40] D. Gray and H. Tao, "Viewpoint Invariant Pedestrian Recognition with an Ensemble of Localized Features," in *proceedings of the European Conference on Computer Vision*. Springer, 2008, pp. 262–275.

[41] W. R. Schwartz and L. S. Davis, "Learning discriminative appearance-based models using partial least squares," in *Computer Graphics and Image Processing (SIBGRAPI), 2009 XXII Brazilian Symposium on*. IEEE, 2009, pp. 322–329.

[42] T. Avraham, I. Gurvich, M. Lindenbaum, and S. Markovitch, "Learning implicit transfer for person re-identification," in *European Conference on Computer Vision*. Springer, 2012, pp. 381–390.

[43] M. Dikmen, E. Akbas, T. S. Huang, and N. Ahuja, "Pedestrian recognition with a learned metric," in *Asian conference on Computer vision*. Springer, 2010, pp. 501–512.

[44] W.-S. Zheng, S. Gong, and T. Xiang, "Reidentification by relative distance comparison," *IEEE transactions on pattern analysis and machine intelligence*, 2013, vol. 35, no. 3, pp. 653–668.

[45] B. Ma, Y. Su, and F. Jurie, "Bicov: a novel image representation for person re-identification and face verification," in *The British Machine Vision Conference (BMVC)*, 2012, pp. 11–pages.

[46] S. Ding, L. Lin, G. Wang, and H. Chao, "Deep feature learning with relative distance comparison for person re-identification," *Pattern Recognition*, 2015, vol. 48, no. 10, pp. 2993–3003.

[47] N. McLaughlin, J. Martinez del Rincon, and P. Miller, "Recurrent Convolutional Network for Video-Based Person Re-Identification," in *proceedings of the IEEE Conference on Computer Vision And Pattern Recognition*, 2016, pp. 1325–1334.

[48] Y. Yan, B. Ni, Z. Song, C. Ma, Y. Yan, and X. Yang, "Person Re-Identification via Recurrent Feature Aggregation," in *proceedings of the European Conference on Computer Vision*. Springer, 2016, pp. 701–716.

[49] Y. Liu, J. Yan, and W. Ouyang, "Quality Aware Network for Set to Set Recognition," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017, pp. 5790–5799.

[50] Z. Zhou, Y. Huang, W. Wang, L. Wang, and T. Tan, "See the Forest for the Trees: Joint Spatial and Temporal Recurrent Neural Networks for Video-Based Person Re-Identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017, pp. 4747–4756.

[51] S. Xu, Y. Cheng, K. Gu, Y. Yang, S. Chang, and P. Zhou, "Jointly Attentive Spatial-Temporal Pooling Networks for Video-Based Person Re-Identification," in *proceedings of the IEEE International Conference on Computer Vision*, 2017, pp. 4733–4742.

[52] D. Chung, K. Tahboub, and E. J. Delp, "A Two Stream Siamese Convolutional Neural Network for Person Re-Identification," in *proceedings of the IEEE International Conference on Computer Vision*, 2017, pp. 1983–1991.

[53] R. Minetto, M. P. Segundo, and S. Sarkar, "Hydra: An Ensemble of Convolutional Neural Networks for Geospatial Land Classification," *IEEE Transactions on Geoscience and Remote Sensing*, 2019.

[54] H. Liu, Z. Jie, K. Jayashree, M. Qi, J. Jiang, S. Yan, and J. Feng, "Video-Based Person Re-Identification with Accumulative Motion Context," *IEEE Transactions on Circuits and Systems for Video Technology*, 2017, vol. 28, no. 10, pp. 2788–2802.

[55] M. Ye, J. Li, A. J. Ma, L. Zheng, and P. C. Yuen, "Dynamic Graph Co-Matching for Unsupervised Video-Based Person Re-Identification," *IEEE Transactions on Image Processing*, 2019, vol. 28, no. 6, pp. 2976–2990.

[56] W. Li, X. Zhu, and S. Gong, "Harmonious attention network for person re-identification," in *Proceedings of the IEEE conference on computer vision and pattern recognition*, 2018, pp. 2285–2294.

[57] C. Song, Y. Huang, W. Ouyang, and L. Wang, "Mask-guided contrastive attention model for person re-identification," in *Proceedings of the IEEE conference on computer vision and pattern recognition*, 2018, pp. 1179–1188.

[58] A. Zheng, X. Zhang, B. Jiang, B. Luo, and C. Li, "A subspace learning approach to multishot person reidentification," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 2018, no. 99, pp. 1–10.

[59] J. Zhou, B. Su, and Y. Wu, "Easy identification from better constraints: Multi-shot person re-identification from reference constraints," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2018, pp. 5373–5381.

[60] J. Lv, W. Chen, Q. Li, and C. Yang, "Unsupervised cross-dataset person re-identification by transfer learning of spatial-temporal patterns," in *proceedings of*

the IEEE Conference on Computer Vision and Pattern Recognition, 2018, pp. 7948–7956.

[61] X. Qian, Y. Fu, Y.-G. Jiang, T. Xiang, and X. Xue, "Multi-scale deep learning architectures for person re-identification," in *proceedings of the IEEE International Conference on Computer Vision*, 2017, pp. 5399–5408.

[62] J. Lin, L. Ren, J. Lu, J. Feng, and J. Zhou, "Consistent-aware deep learning for person re-identification in a camera network," in *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, vol. 6, 2017.

[63] Y. Yan, J. Qin, J. Chen, L. Liu, F. Zhu, Y. Tai, and L. Shao, "Learning multi-granular hypergraphs for video-based person re-identification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2020, pp. 2899–2908.

[64] J. Bromley, I. Guyon, Y. LeCun, E. Säckinger, and R. Shah, "Signature verification using a "siamese" time delay neural network," in *Advances in Neural Information Processing Systems*, 1994, pp. 737–744.

[65] D. Yi, Z. Lei, S. Liao, and S. Z. Li, "Deep metric learning for person re-identification," in *22nd International Conference on Pattern Recognition (ICPR) 2014*. IEEE, 2014, pp. 34–39.

[66] D. Li, X. Chen, Z. Zhang, and K. Huang, "Learning deep context-aware features over body and latent parts for person re-identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017, pp. 384–393.

[67] C. Shen, Z. Jin, Y. Zhao, Z. Fu, R. Jiang, Y. Chen, and X.-S. Hua, "Deep siamese network with multi-level similarity perception for person re-identification," in *Proceedings of the 25th ACM international conference on Multimedia*, 2017, pp. 1942–1950.

[68] A. Munir, N. Martinel, and C. Micheloni, "Multi branch siamese network for person re-identification," in *2020 IEEE International Conference on Image Processing (ICIP)*. IEEE, 2020, pp. 2351–2355.

[69] M. Zheng, S. Karanam, Z. Wu, and R. J. Radke, "Re-identification with consistent attentive siamese networks," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2019, pp. 5735–5744.

[70] J. Wang and Y. Zhai, "Prototypical siamese networks for few-shot learning," in *Proceedings of the International Conference on Electronics Information and Emergency Communication*. IEEE, 2020, pp. 178–181.

[71] X. Zhou, W. Liang, S. Shimizu, J. Ma, and Q. Jin, "Siamese neural network based few-shot learning for anomaly detection in industrial cyber-physical systems," *IEEE Transactions on Industrial Informatics*, 2020, vol. 17, no. 8, pp. 5790–5798.

[72] P. Dai, R. Ji, H. Wang, Q. Wu, and Y. Huang, "Cross-modality person re-identification with generative adversarial training." in *27th International Joint Conference on Artificial Intelligence (IJCAI)*, vol. 1, 2018, p. 2.

[73] Y. Ge, Z. Li, H. Zhao, G. Yin, S. Yi, X. Wang, and H. Li, "Fd-gan: Pose-guided feature distilling gan for robust person re-identification," *arXiv preprint arXiv:1810.02936*, 2018.

[74] X. Qian, Y. Fu, T. Xiang, W. Wang, J. Qiu, Y. Wu, Y.-G. Jiang, and X. Xue, "Pose-normalized image generation for person re-identification," in *proceedings of the European conference on computer vision (ECCV)*, 2018, pp. 650–667.

[75] G. Wang, J. Lai, P. Huang, and X. Xie, "Spatial-temporal person re-identification," in *proceedings of the AAAI conference on artificial intelligence*, vol. 33, no. 01, 2019, pp. 8933–8940.

[76] L. Wei, S. Zhang, W. Gao, and Q. Tian, "Person transfer gan to bridge domain gap for person re-identification," in *proceedings of the IEEE conference on computer vision and pattern recognition*, 2018, pp. 79–88.

[77] S. Zhou, M. Ke, and P. Luo, "Multi-camera transfer gan for person re-identification," *Journal of Visual Communication and Image Representation*, 2019, vol. 59, pp. 393–400.

[78] Y. Zhang, Y. Jin, J. Chen, S. Kan, Y. Cen, and Q. Cao, "Pgan: Part-based nondirect coupling embedded gan for person reidentification," *IEEE MultiMedia*, 2020, vol. 27, no. 3, pp. 23–33.

[79] M. Adil, S. Mamoon, A. Zakir, M. A. Manzoor, and Z. Lian, "Multi scale-adaptive super-resolution person re-identification using gan," *IEEE Access*, 2020, vol. 8, pp. 177 351–177 362.

[80] T. Chen, S. Ding, J. Xie, Y. Yuan, W. Chen, Y. Yang, Z. Ren, and Z. Wang, "Abd-net: Attentive but diverse person re-identification," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 8351–8361.

[81] X. Ning, K. Gong, W. Li, L. Zhang, X. Bai, and S. Tian, "Feature refinement and filter network for person re-identification," *IEEE Transactions on Circuits and Systems for Video Technology*, 2020, vol. 31, no. 9, pp. 3391–3402.

[82] D. Wang and S. Zhang, "Unsupervised person re-identification via multi-label classification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2020, pp. 10 981–10 990.

[83] Y. Zhai, S. Lu, Q. Ye, X. Shan, J. Chen, R. Ji, and Y. Tian, "Ad-cluster: Augmented discriminative clustering for domain adaptive person re-identification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2020, pp. 9021–9030.

[84] J. Guo, Y. Yuan, L. Huang, C. Zhang, J.-G. Yao, and K. Han, "Beyond human parts: Dual part-aligned representations for person re-identification," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 3642–3651.

[85] K. Zheng, W. Liu, L. He, T. Mei, J. Luo, and Z.-J. Zha, "Group-aware label transfer for domain adaptive person re-identification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2021, pp. 5310–5319.

[86] Y. Li, J. He, T. Zhang, X. Liu, Y. Zhang, and F. Wu, "Diverse part discovery: Occluded person re-identification with part-aware transformer," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2021, pp. 2898–2907.

[87] D. Fu, D. Chen, J. Bao, H. Yang, L. Yuan, L. Zhang, H. Li, and D. Chen, "Unsupervised pre-training for person re-identification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2021, pp. 14 750–14 759.

[88] H. Park and B. Ham, "Relation network for person re-identification," in *Proceedings of the AAAI Conference on Artificial Intelligence*, vol. 34, no. 07, 2020, pp. 11 839–11 847.

[89] Z. Zhang, C. Lan, W. Zeng, X. Jin, and Z. Chen, "Relation-aware global attention for person re-identification," in *Proceedings of the ieee/cvf conference on computer vision and pattern recognition*, 2020, pp. 3186–3195.

[90] F. Wan, Y. Wu, X. Qian, Y. Chen, and Y. Fu, "When person re-identification meets changing clothes," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*, 2020, pp. 830–831.

[91] X. Liu and S. Zhang, "Domain adaptive person re-identification via coupling optimization," in *Proceedings of the 28th ACM International Conference on Multimedia*, 2020, pp. 547–555.

[92] M. Wang, B. Lai, J. Huang, X. Gong, and X.-S. Hua, "Camera-aware proxies for unsupervised person re-identification," in *AAAI*, vol. 2, no. 3, 2021, p. 4.

[93] X. Liu, P. Zhang, C. Yu, H. Lu, and X. Yang, "Watching you: Global-guided reciprocal learning for video-based person re-identification," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2021, pp. 13 334–13 343.

[94] J. Miao, Y. Wu, and Y. Yang, "Identifying visible parts via pose estimation for occluded person re-identification," *IEEE Transactions on Neural Networks and Learning Systems*, 2021.

[95] J. Yang, J. Zhang, F. Yu, X. Jiang, M. Zhang, X. Sun, Y.-C. Chen, and W.-S. Zheng, "Learning to know where to see: A visibility-aware approach for occluded person re-identification," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2021, pp. 11 885–11 894.

[96] H. Feng, M. Chen, J. Hu, D. Shen, H. Liu, and D. Cai, "Complementary pseudo labels for unsupervised domain adaptation on person re-identification," *IEEE Transactions on Image Processing*, 2021, vol. 30, pp. 2898–2907.

[97] R. Hou, B. Ma, H. Chang, X. Gu, S. Shan, and X. Chen, "Feature completion for occluded person re-identification," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2021.

[98] M. Jia, X. Cheng, Y. Zhai, S. Lu, S. Ma, Y. Tian, and J. Zhang, "Matching on sets: Conquer occluded person re-identification without alignment," in *Proc. AAAI Conf. Artif. Intell.*, 2021, pp. 1673–1681.

[99] H. Huang, W. Yang, J. Lin, G. Huang, J. Xu, G. Wang, X. Chen, and K. Huang, "Improve person re-identification with part awareness learning," *IEEE Transactions on Image Processing*, 2020, vol. 29, pp. 7468–7481.

[100] J. Yang, W.-S. Zheng, Q. Yang, Y.-C. Chen, and Q. Tian, "Spatial-temporal graph convolutional network for video-based person re-identification," in *Proceedings of the IEEE/CVF conference on computer vision and pattern recognition*, 2020, pp. 3289–3299.

[101] Z. Wang, J. Jiang, Y. Wu, M. Ye, X. Bai, and S. Satoh, "Learning sparse and identity-preserved hidden attributes for person re-identification," *IEEE Transactions on Image Processing*, 2019, vol. 29, pp. 2013–2025.

[102] F. Liu and L. Zhang, "View confusion feature learning for person re-identification," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 6639–6648.

[103] Z. Zhu, X. Jiang, F. Zheng, X. Guo, F. Huang, X. Sun, and W. Zheng, "Aware loss with angular regularization for person re-identification," in *Proceedings of the AAAI conference on artificial intelligence*, vol. 34, no. 07, 2020, pp. 13 114–13 121.

[104] F. Yang, K. Li, Z. Zhong, Z. Luo, X. Sun, H. Cheng, X. Guo, F. Huang, R. Ji, and S. Li, "Asymmetric co-teaching for unsupervised cross-domain person re-identification," in *Proceedings of the AAAI conference on artificial intelligence*, vol. 34, no. 07, 2020, pp. 12 597–12 604.

[105] X. Jin, C. Lan, W. Zeng, G. Wei, and Z. Chen, "Semantics-aligned representation learning for person re-identification," in *Proceedings of the AAAI Conference on Artificial Intelligence*, vol. 34, no. 07, 2020, pp. 11 173–11 180.

[106] D. Gray, S. Brennan, and H. Tao, "Evaluating appearance models for recognition, reacquisition, and tracking," in *proceedings IEEE International Workshop*

on Performance Evaluation for Tracking and Surveillance (PETS), vol. 3, no. 5. Citeseer, 2007, pp. 1–7.

[107] W. Li, R. Zhao, and X. Wang, "Human reidentification with transferred metric learning," in *Asian Conference on Computer Vision*. Springer, 2012, pp. 31–44.

[108] L. Zheng, L. Shen, L. Tian, S. Wang, J. Wang, and Q. Tian, "Scalable person re-identification: A benchmark," in *proceedings of the IEEE International Conference on Computer Vision*, 2015, pp. 1116–1124.

[109] W.-S. Zheng, X. Li, T. Xiang, S. Liao, J. Lai, and S. Gong, "Partial person re-identification," in *proceedings of the IEEE International Conference on Computer Vision*, 2015, pp. 4678–4686.

[110] W.-S. Zheng, S. Gong, and T. Xiang, "Person re-identification by probabilistic relative distance comparison," in *Computer Vision and Pattern Recognition (2011)*. IEEE, 2011, pp. 649–656.

[111] T. Wang, S. Gong, X. Zhu, and S. Wang, "Person Re-identification by Discriminative Selection in Video Ranking," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2016, vol. 38, no. 12, pp. 2501–2514.

[112] M. Hirzer, C. Beleznai, P. M. Roth, and H. Bischof, "Person Re-Identification by Descriptive and Discriminative Classification," in *proceedings of the Scandinavian conference on Image analysis*. Springer, 2011, pp. 91–102.

[113] X. Zhu, X.-Y. Jing, X. You, X. Zhang, and T. Zhang, "Video-Based Person Re-Identification by Simultaneously Learning Intra-Video and Inter-Video Distance Metrics," *IEEE Transactions on Image Processing*, 2018, vol. 27, no. 11, pp. 5683–5695.

[114] P. F. Felzenszwalb, R. B. Girshick, D. McAllester, and D. Ramanan, "Object Detection with Discriminatively Trained Part-Based Models," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2009, vol. 32, no. 9, pp. 1627–1645.

[115] A. Dehghan, S. Modiri Assari, and M. Shah, "GMMCP Tracker: Globally Optimal Generalized Maximum Multi Clique Problem For Multiple Object Tracking," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2015, pp. 4091–4099.

[116] F. Chollet *et al.*, "Keras: The python deep learning library," *Astrophysics Source Code Library*, 2018, pp. ascl–1806.

[117] F. Chollet, "Xception: Deep learning with depthwise separable convolutions," in *proceedings of the IEEE conference on computer vision and pattern recognition*, 2017, pp. 1251–1258.

[118] M. Abadi, P. Barham, J. Chen, Z. Chen, A. Davis, J. Dean, M. Devin, S. Ghemawat, G. Irving, M. Isard *et al.*, "Tensorflow: a system for large-scale machine learning." in *OSDI*, vol. 16, 2016, pp. 265–283.

[119] A. Mordvintsev, C. Olah, and M. Tyka, "Deep dream, 2015," 2017.

[120] A. Paszke, S. Gross, F. Massa, A. Lerer, J. Bradbury, G. Chanan, T. Killeen, Z. Lin, N. Gimelshein, L. Antiga *et al.*, "Pytorch: An imperative style, high-performance deep learning library," *arXiv preprint arXiv:1912.01703*, 2019.

[121] M. Patel, "When two trends fuse: Pytorch and recommender systems," 2018.

[122] A. D'Angelo and J.-L. Dugelay, "People Re-Identification in Camera Networks Based on Probabilistic Color Histograms," in *Proc. of the Visual Information Processing and Communication II*, vol. 7882, 2011, pp. 159 – 170.

[123] Z. Li, S. Chang, F. Liang, T. S. Huang, L. Cao, and J. R. Smith, "Learning locally-adaptive decision functions for person verification," in *Proceedings of the IEEE conference on computer vision and pattern recognition*, 2013, pp. 3610–3617.

[124] A. Klaser, M. Marszałek, and C. Schmid, "A Spatio-Temporal Descriptor Based on 3D-Gradients," in *proceedings of the* 19^{th} *British Machine Vision Conference*, 2008, pp. 275:1–10.

[125] L. He, J. Liang, H. Li, and Z. Sun, "Deep spatial feature reconstruction for partial person re-identification: Alignment-free approach," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2018, pp. 7073–7082.

[126] L. He, Z. Sun, Y. Zhu, and Y. Wang, "Recognizing partial biometric patterns," *arXiv preprint arXiv:1810.07399*, 2018.

[127] M. Ye, J. Shen, G. Lin, T. Xiang, L. Shao, and S. C. Hoi, "Deep Learning for Person Re-Identification: A Survey and Outlook," *IEEE Transactions on PAMI*, 2021.

[128] D. P. Kingma and J. Ba, "Adam: A method for stochastic optimization," *arXiv preprint arXiv:1412.6980*, 2014.

[129] Y. Jiang, J. Wang, Y. Liang, and J. Xia, "Combining static and dynamic features for real-time moving pedestrian detection," *Multimedia Tools and Applications*, 2019, vol. 78, no. 3, pp. 3781–3795.

[130] R. R. Varior, B. Shuai, J. Lu, D. Xu, and G. Wang, "A siamese long short-term memory architecture for human re-identification," in *European Conference on Computer Vision*. Springer, 2016, pp. 135–153.

[131] Y. Guo and N.-M. Cheung, "Efficient and deep person re-identification using multi-level similarity," *arXiv preprint arXiv:1803.11353*, 2018.

[132] P. Chattopadhyay, A. Roy, S. Sural, and J. Mukhopadhyay, "Pose depth volume extraction from rgb-d streams for frontal gait recognition," *Journal of Visual Communication and Image Representation*, 2014, vol. 25, no. 1, pp. 53–63.

[133] A. Roy, S. Sural, and J. Mukherjee, "Gait recognition using pose kinematics and pose energy image," *Signal Processing*, 2012, vol. 92, no. 3, pp. 780–792.

[134] A. Bedagkar-Gala and S. K. Shah, "A survey of approaches and trends in person re-identification," *Image and vision computing*, 2014, vol. 32, no. 4, pp. 270–286.

[135] X.-S. Wei, C.-L. Zhang, L. Liu, C. Shen, and J. Wu, "Coarse-to-fine: A rnn-based hierarchical attention model for vehicle re-identification," in *Asian Conference on Computer Vision*. Springer, 2018, pp. 575–591.

[136] W. Zhang, X. Yu, and X. He, "Learning bidirectional temporal cues for video-based person re-identification," *IEEE Transactions on Circuits and Systems for Video Technology*, 2017, vol. 28, no. 10, pp. 2768–2776.

[137] K. Kansal, S. Venkata, D. K. Prasad, and M. Kankanhalli, "Carf-net: Cnn attention and rnn fusion network for video-based person reidentification," *Journal of Electronic Imaging*, 2019, vol. 28, no. 2, p. 023036.

[138] K. He, X. Zhang, S. Ren, and J. Sun, "Deep Residual Learning for Image Recognition," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2016, pp. 770–778.

[139] Z. Wu, C. Shen, and A. Van Den Hengel, "Wider or Deeper: Revisiting the Resnet Model for Visual Recognition," *Pattern Recognition*, 2019, vol. 90, pp. 119–133.

[140] J. Dai, Y. Li, K. He, and J. Sun, "R-FCN: Object Detection via Region-Based Fully Convolutional Networks," in *proceedings of the Advances in Neural Information Processing Systems*, 2016, pp. 379–387.

[141] "Pytorch: Models," https://pytorch.org/docs/stable/torchvision/models.html, accessed: 2020-01-16.

[142] K. Liu, B. Ma, W. Zhang, and R. Huang, "A Spatio-Temporal Appearance Representation for Video-Based Pedestrian Re-Identification," in *proceedings of the IEEE International Conference on Computer Vision*, 2015, pp. 3810–3818.

[143] C. Gao, J. Wang, L. Liu, J.-G. Yu, and N. Sang, "Temporally Aligned Pooling Representation for Video-Based Person Re-Identification," in *proceedings of the IEEE International Conference on Image Processing*. IEEE, 2016, pp. 4284–4288.

[144] S. Karanam, Y. Li, and R. J. Radke, "Sparse Re-Id: Block Sparsity for Person Re-Identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops*, 2015, pp. 33–40.

[145] M. Farenzena, L. Bazzani, A. Perina, V. Murino, and M. Cristani, "Person Re-Identification by Symmetry-Driven Accumulation of Local Features," in *proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*. IEEE, 2010, pp. 2360–2367.

[146] J. You, A. Wu, X. Li, and W.-S. Zheng, "Top-Push Video-Based Person Re-Identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2016, pp. 1345–1353.

[147] M. Koestinger, M. Hirzer, P. Wohlhart, P. M. Roth, and H. Bischof, "Large scale metric learning from equivalence constraints," in *Computer Vision and Pattern Recognition (CVPR), 2012 IEEE Conference on*. IEEE, 2012, pp. 2288–2295.

[148] B. Ma, Y. Su, and F. Jurie, "Covariance Descriptor Based on Bio-Inspired Features for Person Re-Identification and Face Verification," *Image and Vision Computing*, 2014, vol. 32, no. 6-7, pp. 379–390.

[149] L. Zheng, H. Zhang, S. Sun, M. Chandraker, Y. Yang, and Q. Tian, "Person Re-identification in the Wild," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017, pp. 1367–1376.

[150] S. Liao, Y. Hu, X. Zhu, and S. Z. Li, "Person Re-Identification by Local Maximal Occurrence Representation and Metric Learning," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2015, pp. 2197–2206.

[151] F. Xiong, M. Gou, O. Camps, and M. Sznaier, "Person re-identification using kernel-based metric learning methods," in *European conference on computer vision*. Springer, 2014, pp. 1–16.

[152] M. Li, X. Zhu, and S. Gong, "Unsupervised Person Re-Identification by Deep Learning Tracklet Association," in *proceedings of the European Conference on Computer Vision*, 2018, pp. 737–753.

[153] J. Zhuo, Z. Chen, J. Lai, and G. Wang, "Occluded person re-identification," in *2018 IEEE International Conference on Multimedia and Expo (ICME)*. IEEE, 2018, pp. 1–6.

[154] L. He, Y. Wang, W. Liu, H. Zhao, Z. Sun, and J. Feng, "Foreground-aware pyramid reconstruction for alignment-free occluded person re-identification," in *proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 8450–8459.

[155] S. Gao, J. Wang, H. Lu, and Z. Liu, "Pose-guided visible part matching for occluded person reid," in *proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2020, pp. 11 744–11 752.

[156] G. Wang, S. Yang, H. Liu, Z. Wang, Y. Yang, S. Wang, G. Yu, E. Zhou, and J. Sun, "High-order information matters: Learning relation and topology for

occluded person re-identification," in *proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, June 2020.

[157] O. Ronneberger, P. Fischer, and T. Brox, "U-net: Convolutional networks for biomedical image segmentation," in *International Conference on Medical image computing and computer-assisted intervention*. Springer, 2015, pp. 234–241.

[158] Y.-C. Liu, D. S. Tan, J.-C. Chen, W.-H. Cheng, and K.-L. Hua, "Segmenting Hepatic Lesions Using Residual Attention U-Net with an Adaptive Weighted Dice Loss," in *proceedings of the Internation Conference on Image Processing*, 2019, pp. 3322–3326.

[159] A. Radford, L. Metz, and S. Chintala, "Unsupervised representation learning with deep convolutional generative adversarial networks," *arXiv preprint arXiv:1511.06434*, 2015.

[160] C. Jose and F. Fleuret, "Scalable metric learning via weighted approximate rank component analysis," in *European conference on computer vision*. Springer, 2016, pp. 875–890.

[161] T. Xiao, H. Li, W. Ouyang, and X. Wang, "Learning deep feature representations with domain guided dropout for person re-identification," in *proceedings of the IEEE conference on computer vision and pattern recognition*, 2016, pp. 1249–1258.

[162] X. Liu, H. Zhao, M. Tian, L. Sheng, J. Shao, S. Yi, J. Yan, and X. Wang, "Hydraplus-net: Attentive deep features for pedestrian analysis," in *proceedings of the IEEE international conference on computer vision*, 2017, pp. 350–359.

[163] Z. Zhong, L. Zheng, Z. Zheng, S. Li, and Y. Yang, "Camera style adaptation for person re-identification," in *proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2018, pp. 5157–5166.

[164] Y. Sun, L. Zheng, Y. Yang, Q. Tian, and S. Wang, "Beyond part models: Person retrieval with refined part pooling (and a strong convolutional baseline)," in *proceedings of the European conference on computer vision (ECCV)*, 2018, pp. 480–496.

[165] X. Fan, H. Luo, X. Zhang, L. He, C. Zhang, and W. Jiang, "Scpnet: Spatial-channel parallelism network for joint holistic and partial person re-identification," in *Asian conference on computer vision*. Springer, 2018, pp. 19–34.

[166] L. He and W. Liu, "Guided saliency feature learning for person re-identification in crowded scenes," in *European Conference on Computer Vision*. Springer, 2020, pp. 357–373.

[167] J. Zhuo, J. Lai, and P. Chen, "A novel teacher-student learning framework for occluded person re-identification," *arXiv preprint arXiv:1907.03253*, 2019.

[168] Y. Sun, Q. Xu, Y. Li, C. Zhang, Y. Li, S. Wang, and J. Sun, "Perceive where to focus: Learning visibility-aware part-level features for partial person re-identification," in *proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2019, pp. 393–402.

[169] S. Xingjian, Z. Chen, H. Wang, D.-Y. Yeung, W.-K. Wong, and W.-c. Woo, "Convolutional lstm network: A machine learning approach for precipitation nowcasting," in *Advances in neural information processing systems*, 2015, pp. 802–810.

[170] G. K. De Teyou, "Convlstm for spatio-temporal feature extraction in time-series images," in *https://s3.us-east-1.amazonaws.com/climate-change-ai/papers/neurips2020/12/paper.pdf*, 2020.

[171] D. Das, A. Agarwal, P. Chattopadhyay, and L. Wang, "Rgait-net: An effective network for recovering missing information from occluded gait cycles," *arXiv preprint arXiv:1912.06765*, 2019.

LIST OF PUBLICATIONS

Journal Papers

Nirbhay Kumar Tagore, Ayushman Singh, Sumanth Manche, and Pratik Chattopadhyay. "Person re-identification from appearance cues and deep Siamese features." Journal of Visual Communication and Image Representation 75 (2021): 103029. (Elsevier, **IF: 2.678**)

Nirbhay Kumar Tagore, Pratik Chattopadhyay, and Lipo Wang. "T-MAN: a neural ensemble approach for person re-identification using spatio-temporal information." Multimedia Tools and Applications 79, no. 37 (2020): 28393-28409. (Springer, **IF: 2.757**)

Nirbhay Kumar Tagore, and Pratik Chattopadhyay. "A bi-network architecture for occlusion handling in Person re-identification." Signal, Image and Video Processing (2021): 1-9. (Springer, **IF: 2.157**)

Nirbhay Kumar Tagore, Prathistith Raj Medi, and Pratik Chattopadhyay. "Occlusion Detection and Reconstruction for Effective Person Re-identification". IEEE Transactions on Emerging Topics in Computational Intelligence. (IEEE, **IF: 8.28**) (Under Review)

Conference Paper

Nirbhay Kumar Tagore, and Pratik Chattopadhyay. "SMSNet: A Novel Multi-scale Siamese Model for Person Re-Identification." 17^{th} International Conference on Signal Processing and Multimedia Applications, pp. 103-112. 2020. (Scopus)