

Publications

Books and Edited Books

- R. Panda, A. Roy-Chowdhury, “Person Reidentification with Limited Supervision”, Synthesis Lectures in Computer Vision, Morgan and Claypool Publishers, 2021.
- A. Roy-Chowdhury, B. Song, “Camera Networks - The Acquisition and Analysis of Videos Over Wide Areas”, Synthesis Lectures in Computer Vision, Morgan and Claypool Publishers, 2012.
- Eds: B. Bhanu, C. Ravishankar, A. Roy-Chowdhury, H. Aghajan, D. Terzopoulos, “Distributed Video Sensor Networks”, Springer, 2010.
- R. Chellappa, A. Roy-Chowdhury, S. Zhou, “Recognition of Humans and Their Activities From Video”, in Image, Video and Multimedia Processing, Morgan and Claypool Publishers, 2005.

Journal Articles

1. M. Liu, F. Wang, X. Wang, Y. Wang, A. Roy-Chowdhury, “A Two-stage Noise-tolerant Paradigm for Label Corrupted Person Re-identification”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 2024.
2. S. Nag, D. Raychaudhuri, S. Paul, A. Roy-Chowdhury, “Reconstruction guided Meta-learning for Few Shot Open Set Recognition”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 2023.
3. S. Lan, Z. Wang, E. Wei, A. Roy-Chowdhury, W. Zhu, “Collaborative Multi-Agent Video Fast-Forwarding”, *IEEE Transactions on Multimedia*, 2023.
4. A. Fahim, V. Papalexakis, S. Krishnamurthy, A. Roy-Chowdhury, L. Kaplan, T. Abdelzaher, “AcTrak: Controlling a Steerable Surveillance Camera using Reinforcement Learning”. *IEEE Trans. on Cyber-Physical Systems*, 2023.
5. C. Michael, M. Banwart-Kuhn, K. Rodriguez, , C. Ta, A. Roy-Chowdhury, W. Chen, G. V. Reddy, M. Alber, ”Role of Turgor-pressure Induced Boundary Tension in the Maintenance of the Shoot Apical Meristem of *Arabidopsis thaliana*”, *Journal of the Royal Society Interface*, 2023.
6. M. Banwart-Kuhn, K. Rodriguez, C. Michael, C. Ta, A. Plong, E. Bourgain-Chang, A. Nematbaksh, W. Chen, A. Roy-Chowdhury, G. V. Reddy, M. Alber, “Combined computational modeling and experimental analysis integrating chemical and mechanical signals suggests possible mechanism of shoot meristem maintenance”, *PLOS Computational Biology*, 2022.
7. S. Paul, N. C. Mithun, A. Roy-Chowdhury, “Text-based Localization of Moments in a Video Corpus”, *IEEE Trans. on Image Processing*, 2021.
8. X. Wang, S. Paul, D. S. Raychaudhuri, M. Liu, Y. Wang, and A. K. Roy-Chowdhury, “Learning Person Re-identification Models from Videos with Weak Supervision”, *IEEE Trans. on Image Processing*, 2021.
9. T. Mahmud, M. Billah, M. Hasan, A. Roy-Chowdhury, “Prediction and Description of Near-Future Activities in Video”, *Computer Vision and Image Understanding*, 2021.

10. X. Wang, R. Panda, M. Liu, Y. Wang, A. Roy-Chowdhury, “Exploiting Global Camera Network Constraints for Unsupervised Video Person Re-identification”, *IEEE Trans. on Circuits and Systems for Video Technology*, 2020.
11. J. Bappy, S. Paul, E. Tuncel, A. Roy-Chowdhury, “Exploiting Typicality for Selecting Informative and Anomalous Samples in Videos”, *IEEE Trans. on Image Processing*, 2019.
12. J. Bappy, C. Simons, L.Natarajan, B. S. Manjunath, A. Roy-Chowdhury, “Hybrid LSTM and Encoder-Decoder Architecture for Detection of Image Forgeries”, *IEEE Trans. on Image Processing*, 2019.
13. R. Panda, A. Bhuyan, V. Murino, A. Roy-Chowdhury, “Adaptation of Person Re-identification Models for On-boarding New Camera(s)”, *Pattern Recognition*, 2019’.
14. M. Hasan, S. Paul, A. Mourikis, A. Roy-Chowdhury, “Context-Aware Query Selection for Active Learning in Event Recognition”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 2018.
15. N. Mithun, R. Panda, A. Roy-Chowdhury, “Construction of Diverse Image Datasets from Web Collections with Limited Labeling”, *IEEE Trans. on Circuits, Systems and Video Technology*, 2019.
16. Jose Rodriguez Borbon, A. Roy-Chowdhury, W. Najjar, “Heterogeneous Acceleration of HAR Applications”, *IEEE Trans. on Circuits, Systems and Video Technology*, 2019.
17. N. C. Mithun, J. B Li, F. Metze, A. Roy-Chowdhury, “Joint Embeddings with Multimodal Cues for Video-Text Retrieval”, *International Journal of Multimedia Information Retrieval*, 2019.
18. R. Panda, N. C. Mithun, A. Roy-Chowdhury, “Diversity-aware Multi-Video Summarization”, *IEEE Trans. on Image Processing*, 2017.
19. R. Panda, A. Roy-Chowdhury, “Multi-View Surveillance Video Summarization via Joint Embedding and Sparse Optimization”, *IEEE Trans. on Multimedia*, 2017.
20. T. Dao, A. Roy-Chowdhury, H. Madhyastha, S. Krishnamurthy, T. LaPorta, “Managing Redundant Content in Bandwidth Constrained Networks”, *IEEE/ACM Trans. on Networking*, 2016.
21. A. Chakraborty, A. Das, A. Roy-Chowdhury, “Network Consistent Data Association”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 2016.
22. A. T. Kamal, J. H. Bappy, J. A. Farrell, A. Roy-Chowdhury, “Distributed Multi-Target Tracking and Data Association in Vision Networks”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 2016.
23. S. Zhang, Y. Zhu, A. Roy-Chowdhury, “Context-Aware Video Summarization”, *IEEE Trans. on Image Processing*, 2016.
24. C. Ding, J. H. Bappy, J. A. Farrell, A. Roy-Chowdhury, “Opportunistic Image Acquisition of Individual and Group Activities in a Distributed Camera Network”, *IEEE Trans. on Circuits and Systems for Video Technology*, 2016.
25. A. Das, R. Panda, A. Roy-Chowdhury, “Continuous Adaptation of Multi-Camera Person Identification Models through Sparse Non-redundant Representative Selection”, *Computer Vision and Image Understanding*, 2016.

26. K. Mkrtchyan, A. Chakraborty, A. Roy-Chowdhury, “Optimal Landmark Selection for Registration of 4D Confocal Image Stacks in Arabidopsis”, *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2016.
27. M. Hasan, A. Roy-Chowdhury, “A Continuous Learning Framework for Activity Recognition Using Deep Hybrid Feature Models”, *IEEE Trans. on Multimedia*, November 2015.
28. M. Hasan, A. Roy-Chowdhury, “Incremental learning of human activity models from videos”, *Computer Vision and Image Understanding*, 2015.
29. A. Das, N. Martinel, C. Micheloni, A. Roy-Chowdhury, “Re-Identification in the Function Space of Feature Warps”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, August 2015.
30. Y. Zhu, N. Nayak, A. Roy-Chowdhury, “Context-Aware Activity Modeling using Hierarchical Conditional Random Fields”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, July 2015.
31. N. Nayak, Y. Zhu, A. Roy-Chowdhury, “Hierarchical Graphical Models for Simultaneous Tracking and Recognition in Wide-Area Scenes”, *IEEE Trans. on Image Processing*, July 2015.
32. R. Srinivasan, C. Rudolph, A. Roy-Chowdhury, “Computerized Face Recognition in Renaissance Portrait Art”, *IEEE Signal Processing Magazine*, July 2015.
33. S. Zhang, Y. Zhu, A. Roy-Chowdhury, “Tracking multiple interacting targets in a camera network”, *Computer Vision and Image Understanding*, 2015.
34. A. Chakraborty, A. Roy-Chowdhury, “Context Aware Spatio-temporal Cell Tracking In Densely Packed Multilayer Tissues”, *Medical Image Analysis*, January 2015.
35. X. Ma, W. Najjar, A. Roy-Chowdhury, “Evaluation and Acceleration of High-Throughput Fixed-Point Object Detection on FPGAs”, *IEEE Trans. on Circuits and Systems in Video Technology*, June 2015.
36. A. Morye, C. Ding, A. Roy-Chowdhury, J. A. Farrell, “Distributed Constrained Optimization for Bayesian Opportunistic Visual Sensing”, *IEEE Trans. on Control Systems Technology*, 2014.
37. A. Kamal, J. A. Farrell, A. Roy-Chowdhury, “Information Weighted Consensus Filters and their Application in Distributed Camera Networks”, *IEEE Trans. on Automatic Control*, 2013.
38. N. Nayak, Y. Zhu, A. Roy-Chowdhury, “Exploiting Spatio-Temporal Scene Structure for Wide-Area Activity Analysis in Unconstrained Environments”, *IEEE Trans. on Information Forensics and Security*, 2013.
39. Y. Zhu, N. Nayak, U. Gaur, B. Song, A. Roy-Chowdhury, “Modeling Multi-object Interactions using String of Feature Graphs”, *Computer Vision and Image Understanding*, 2013.
40. A. Chakraborty, M. Perales, G. V. Reddy, A. Roy-Chowdhury, “Adaptive Geometric Tessellation For 3D Reconstruction of Anisotropically Developing Cells In Multilayer Tissues From Sparse Volumetric Microscopy Images”, *PLOS One*, 2013.
41. Y. Zhu, N. Nayak, A. Roy-Chowdhury, “Context-Aware Activity Recognition and Anomaly Detection in Video”, *IEEE Journal on Selected Topics in Signal Processing, Special Issue on Anomalous Pattern Discovery*, Feb. 2013.

42. M. Tataw, V. Reddy, E. Keogh, A. Roy-Chowdhury, “Quantitative Analysis of Live-Cell Growth at the Shoot Apex of *Arabidopsis thaliana*: Algorithms for Feature Measurement and Temporal alignment”, *IEEE/ACM Trans. on Computational Biology and Biomedicine*, 2013.
43. N. Nayak, Y. Zhu, A. Roy-Chowdhury, “Vector Field Analysis for Multi-Object Behavior Modeling”, *Image and Vision Computing*, 2013.
44. C. Ding, B. Song, J. A. Farrell, A. Roy-Chowdhury, “Collaborative Sensing In A Distributed PTZ Camera Network”, *IEEE Trans. on Image Processing*, June 2012.
45. B. Song, C. Ding, J. A. Farrell, A. Roy-Chowdhury, “Distributed Camera Networks: Integrated Sensing and Analysis for Wide Area Scene Understanding”, *Signal Processing Magazine*, May 2011.
46. Y. Xu, A. Roy-Chowdhury, “A Physics-Based Analysis of Image Appearance Models”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, August 2011.
47. M. Liu, A. Chakraborty, D. Singh, M. Gopi, R. Yadav, G.V. Reddy, and A. Roy-Chowdhury, “Adaptive Cell Segmentation and Tracking for Volumetric Confocal Microscopy Images of A Developing Plant Meristem”, *Molecular Plant*, 2011.
48. B. Song, A. Kamal, C. Soto, C. Ding, J. Farrell, A. Roy-Chowdhury, “Tracking and Activity Recognition Through Consensus in Distributed Camera Networks”, *IEEE Trans. on Image Processing*, October 2010.
49. M. Liu, R. Yadav, A. Roy-Chowdhury, G. V. Reddy, “Automated tracking of stem cell lineages of *Arabidopsis* shoot apex using local graph matching”, *The Plant Journal*, 2010.
50. A. Veeraraghavan, A. Srivastava, A. Roy-Chowdhury, R.Chellappa, “Rate-invariant Recognition of Humans and Their Activities”, *IEEE Trans. on Image Processing*, June 2009.
51. X. Zou, B. Bhanu, A. Roy-Chowdhury, “Continuous Learning of a Multilayered Network Topology in a Video Camera Network”, *Eurasip Journal on Image and Video Processing*, 2009.
52. B. Song and A. Roy-Chowdhury, “Robust Tracking in A Camera Network: A Multi-Objective Optimization Framework”, *IEEE Journal on Selected Topics in Signal Processing: Special Issue on Distributed Processing in Vision Networks*, August 2008.
53. Y. Xu and A. Roy-Chowdhury, “Inverse Compositional Estimation of 3D Pose And Lighting in Dynamic Scenes”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, July 2008.
54. Y.Xu, A. Roy-Chowdhury, and K. Patel, “Integrating Illumination, Motion and Shape Models for Robust Face Recognition In Video”, *Eurasip Journal on Advances in Signal Processing: Special Issue on Advanced Signal Processing and Pattern Recognition Methods for Biometrics*, 2008.
55. M. Abdelkader, A. Roy-Chowdhury, R. Chellappa and U. Akdemir, “Activity Representation Using 3D Shape Models”, *Eurasip Journal on Image and Video Processing: Special Issue on Anthropocentric Video Analysis: Tools and Applications*, 2008.
56. A. Roy-Chowdhury, “Towards A Measure of Deformability of Shape Sequences”, *Pattern Recognition Letters*, Vol. 28, 2007.

57. Y. Xu and A. Roy-Chowdhury, “Integrating Motion, Illumination and Structure in Video Sequences, With Applications in Illumination-Invariant Tracking”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, May 2007.
58. B. Song, E. Tuncel, A. Roy-Chowdhury, “ Towards A Multi-Terminal Video Compression Algorithm By Integrating Distributed Source Coding With Geometrical Constraints”, *Journal of Multimedia*, 2007. (*Invited Paper*)
59. A. Veeraraghavan, A. Roy-Chowdhury, R. Chellappa, “Matching Shape Sequences in Video with Applications in Human Motion Analysis”, *IEEE Trans. on Pattern Analysis and Machine Intelligence*, pp. 1896-1909, December, 2005.
60. N. Vaswani, A. Roy-Chowdhury, R.Chellappa, “Shape Activities: Dynamic Stochastic Models for Moving/Deforming Shapes with Application to Abnormal Activity Detection”, *IEEE Trans. on Image Processing*, pp. 1603-1616, October, 2005.
61. Amit K. Roy-Chowdhury, R. Chellappa. “Statistical Bias in 3D Reconstruction from Monocular Video”, *IEEE Trans. on Image Processing*, pp. 1057-1062, August 2005.
62. A. Kale, A.N.Rajagopalan, A.Sunderesan, N.Cuntoor, A. Roy-Chowdhury, V. Krueger, R. Chellappa. “Identification of Humans Using Gait”, *IEEE Trans. on Image Processing*, pp. 1163-1173, Sept. 2004.
63. Amit K. Roy-Chowdhury, R. Chellappa. “An Information Theoretic Criterion for Evaluating the Quality of 3D Reconstructions”, *IEEE Transactions on Image Processing*, pp. 960-973, July 2004.
64. Amit K. Roy-Chowdhury, R. Chellappa, Trish Keaton. “Wide Baseline Image Registration With Application to 3D Face Modeling”, *IEEE Transactions on Multimedia*, pp. 423-434, June 2004.
65. Amit K. Roy-Chowdhury, R. Chellappa. “Face Reconstruction From Video Using Uncertainty Analysis and A Generic Model”, *Computer Vision and Image Understanding*, 91(1-2), pp. 188-213, July-August 2003.
66. Amit K. Roy-Chowdhury, R. Chellappa. “Stochastic Approximation and Rate Distortion Analysis for Robust Structure and Motion Estimation”, *International Journal of Computer Vision*, Volume 55(1), pp. 27-53, October 2003.

Comprehensive Conference Papers

(Papers with length and acceptance rates similar to major journals, and a multi-tiered review process.)

1. Sk M. Ahmed, F. F. Niloy, D. Raychaudhuri, X. Chang, S. Oymak, A. Roy-Chowdhury, “CONTRAST: Continual Multi-source Adaptation to Dynamic Distributions”, Neural Information Processing Systems (NeurIPS), 2024.
2. T. Chakraborty, E. Shayegani, Z. Cai, N. Abu-Ghazaleh, Y. Dong, A. Roy-Chowdhury, C. Song, “Can Textual Unlearning Solve Cross-Modality Safety Alignment?”, Empirical Methods in Natural Language Processing (EMNLP) Findings, 2024.
3. X. Zhang, X. Chang, M. Li, A. Roy-Chowdhury, J. Chen, S. Oymak, “Selective Attention: Enhancing Transformer through Principled Context Control”, Neural Information Processing Systems (NeurIPS), 2024.

4. C. Simons, D. Raychaudhuri, Sk. M. Ahmed, S. You, K. Karydis, and A. Roy-Chowdhury, “SUM-MIT: Source-Free Adaptation of Uni-Modal Models to Multi-Modal Targets”, IEEE/CVF Intl. Conf. on Computer Vision, 2023.
5. D. Raychaudhuri, C-K Ta, A. Dutta, R. Lal, A. Roy-Chowdhury, “Prior-guided Source-free Domain Adaptation for Human Pose Estimation”, IEEE/CVF Intl. Conf. on Computer Vision, 2023.
6. A. Aich, S. Schulter, A. Roy-Chowdhury, M. Chandraker, and Y. Suh, “Efficient Controllable Multi-Task Architectures”, IEEE/CVF Intl. Conf. on Computer Vision, 2023.
7. S. Nag, K. Min, S. Tripathi, and A. Roy-Chowdhury, “Unbiased Scene Graph Generation in Videos”, IEEE Conf. on Computer Vision and Pattern Recognition, 2023.
8. A. Aich, C. K.-Ta, A. Gupta, C. Song, S. V. Krishnamurthy, M. S. Asif, A. Roy-Chowdhury, “GAMA: Generative Adversarial Multi-Object Scene Attacks”, Neural Information Processing Systems, 2022
9. S. Paul, A. Roy-Chowdhury, A. Cherian, “AVLEN: Audio-Visual-Language Embodied Navigation in 3D Environments”, Neural Information Processing Systems, 2022.
10. Z. Cai, C. Song, S. V. Krishnamurthy, A. Roy-Chowdhury, M. S. Asif, “Blackbox Attacks via Surrogate Ensemble Search”, Neural Information Processing Systems, 2022.
11. Sk M. Ahmed, S. Lohit, K. Peng, M. Jones, A. Roy-Chowdhury, “Cross-Modal Knowledge Transfer Without Task-Relevant Source Data”, European Conf. on Computer Vision, 2022 (**Oral, Acceptance Rate < 5%**).
12. S. Paul, N. C. Mithun, A. Roy-Chowdhury, “Text-based Temporal Localization of Novel Events”, European Conf. on Computer Vision, 2022.
13. C.K. Ta, A. Aich, A. Gupta, A. Roy-Chowdhury, “Poisson2Sparse: Self-Supervised Poisson Denoising From a Single Image”, International Conference on Medical Image Computing and Computer Assisted Intervention, 2022.
14. D. S. Raychaudhuri, Y. Suh, S. Schulter, X. Yu, M. Faraki, A. Roy-Chowdhury, M. Chandraker, “Controllable Dynamic Multi-Task Architectures”, IEEE Conf. on Computer Vision and Pattern Recognition, 2022 (**Oral, Acceptance Rate < 5%**).
15. Z. Cai, S. Rane, A. E. Brito, C. Song, S. V. Krishnamurthy, A. Roy-Chowdhury, M. S. Asif, “Zero-Query Transfer Attacks on Context-Aware Object Detectors”, IEEE Conf. on Computer Vision and Pattern Recognition, 2022.
16. Z. Cai, X. Xie, S. Li, M. Yin, C. Song, S. V. Krishnamurthy, A. Roy-Chowdhury, M. S. Asif, “Context-Aware Transfer Attacks for Object Detection”, Association for the Advancement of Artificial Intelligence, 2022.
17. S. Li, A. Aich, S. Zhu, M. S. Asif, C. Song, A. Roy-Chowdhury, S. Krishnamurthy, “Adversarial Attacks on Black Box Video Classifiers: Leveraging the Power of Geometric Transformations”, Neural Information Processing Systems, 2021.
18. M. Yin, S. Li, Z. Cai, C. Song, S. Asif, S. Krishnamurthy, A. Roy-Chowdhury, “Exploiting Multi-Object Relationships for Detecting Adversarial Attacks in Complex Scenes”, International Conference on Computer Vision, 2021.

19. A. Aich, M. Zheng, S. Karanam, T. Chen, A. Roy-Chowdhury, Z. Wu, “Spatio-Temporal Representation Factorization for Video-based Person Re-Identification”, Intl. Conf. on Computer Vision, 2021.
20. X. Wang, S. Li, M. Liu, Y. Wang, A. Roy-Chowdhury, “Multi-Expert Adversarial Attack Detection in Person Re-identification Using Context Inconsistency”, Intl. Conf. on Computer Vision, 2021.
21. Dripta S. Raychaudhuri, Sujoy Paul, Jeroen van Baar, Amit K. Roy-Chowdhury, “Cross-domain Imitation from Observations”, International Conference on Machine Learning, 2021 (**Oral, Acceptance Rate < 5%**).
22. Sk Miraj Ahmed, Dripta S. Raychaudhuri, Sujoy Paul, Samet Oymak, Amit K. Roy-Chowdhury, “Unsupervised Multi-source Domain Adaptation Without Access to Source Data”, IEEE Conf. on Computer Vision and Pattern Recognition, 2021 (**Oral, Acceptance Rate < 5%**)
23. Akash Gupta, Saisri Padmaja Jonnalagedda, Bir Bhanu, Amit K. Roy-Chowdhury, “AdaVSR: Adaptive Video Super-Resolution with Meta-Learning”, ACM International Conference on Multimedia, 2021. (**Oral, Acceptance Rate < 10%**)
24. Akash Gupta, Rameswar Panda, Sujoy Paul, Jianming Zhang and Amit K. Roy-Chowdhury, “Adversarial Knowledge Transfer from Unlabeled Data”, ACM International Conference on Multimedia, 2020.
25. Akash Gupta, Abhishek Aich, and Amit K. Roy-Chowdhury, “ALANET: Adaptive Latent Attention Network for Joint Video Deblurring and Interpolation”, ACM International Conference on Multimedia, 2020. (**Oral, Acceptance Rate < 10%**)
26. Shuyue Lan, Zhilu Wang, Amit K. Roy-Chowdhury, Ermin Wei, and Qi Zhu, “Distributed Multi-agent Video Fast-forwarding”, ACM International Conference on Multimedia, 2020. (**Oral, Acceptance Rate < 10%**)
27. Sujoy Paul, Yi-Hsuan Tsai, Samuel Schulter, Amit K Roy-Chowdhury, Manmohan Chandraker, “Domain Adaptive Semantic Segmentation Using Weak Labels”, European Conference on Computer Vision, 2020.
28. S. Li, S. Zhu, S. Paul, A. Roy-Chowdhury, C. Song, S. Krishnamurthy, A. Swami, K. S Chan, “Connecting the Dots: Detecting Adversarial Perturbations Using Context Inconsistency”, European Conference on Computer Vision, 2020.
29. D. Raychaudhuri, A. Roy-Chowdhury, “Exploiting Temporal Coherence for Self-Supervised One-shot Video Re-identification”, European Conference on Computer Vision, 2020.
30. Sk. M. Ahmed, A. R. lejbolle, R. Panda, A. Roy-Chowdhury, “Camera On-boarding for Person Re-identification using Hypothesis Transfer Learning”, IEEE Conf. on Computer Vision and Pattern Recognition, 2020..
31. A. Aich, A. Gupta, R. Panda, R. Hyder, S. Asif, A. Roy-Chowdhury, “Non-Adversarial Video Synthesis with Learned Priors”, IEEE Conference on Computer Vision and Pattern Recognition, 2020.
32. S. Paul, J. van Barr, A. Roy-Chowdhury, “Learning from Trajectories via Subgoal Discovery”, Conf. on Neural Information Processing Systems, 2019.
33. N. Mithun, S. Paul, A. Roy-Chowdhury, “Weakly Supervised Video Moment Retrieval From Text Queries”, IEEE Conference on Computer Vision and Pattern Recognition, 2019.

34. K. Apicharttrisorn, X. Ran, J. Chen, S. Krishnamurthy, A. Roy-Chowdhury, “Frugal Following: Power Thrifty Object Detection and Tracking for Mobile Augmented Reality”, SenSys, 2019. (**Oral Presentation, Finalist for Best Paper Award.**)
35. S. Li, A. Neupane, S. Paul, C. Song, S. Krishnamurthy, A. Roy-Chowdhury, and A. Swami, “Adversarial Perturbations Against Real-Time Video Classification Systems”, Network and Distributed System Security Symposium, 2019. (**Oral Presentation**)
36. S. Paul, S. Roy, and A. Roy-Chowdhury, “W-TALC: Weakly Supervised Temporal Activity Localization and Classification”, European Conference on Computer Vision, 2018.
37. R. Panda, J. Zhang, H. Li, J. Lee, X. Lu, and A. Roy-Chowdhury, “Contemplating Visual Emotions: Understanding and Overcoming Dataset Bias”, European Conference on Computer Vision, 2018.
38. N. Mithun, R. Panda, E. Papalexakis, and A. Roy-Chowdhury, “Webly Supervised Joint Embedding for Cross-Modal Image-Text Retrieval”, ACM Intl. Conf. on Multimedia, 2018.
39. N. Mithun, J. Li, F. Metze, and A. Roy-Chowdhury, “Learning Joint Embedding with Multimodal Cues for Cross-Modal Video-Text Retrieval”, ACM Intl. Conf. on Multimedia Retrieval, 2018. (**Best Paper Award, Oral**)
40. S. Roy, S. Paul, N. Young, and A. Roy-Chowdhury, “Exploiting Transitivity for Learning Person Re-identification Models on a Budget”, IEEE Conference on Computer Vision and Pattern Recognition, 2018.
41. S. Lan, R. Panda, Q. Zhu, and A. Roy-Chowdhury, “FFNet: Video Fast-Forwarding via Reinforcement Learning”, IEEE Conference on Computer Vision and Pattern Recognition, 2018.
42. T. Mahmud, M. Hasan and A. Roy-Chowdhury, “Joint Prediction of Activity Labels and Starting Times in Untrimmed Videos”, IEEE International Conference on Computer Vision, 2017.
43. J. H. Bappy, A. Roy-Chowdhury, J. Bunk, L. Nataraj and B. S. Manjunath, “Exploiting Spatial Structure for Localizing Manipulated Image Regions”, IEEE International Conference on Computer Vision, 2017.
44. R. Panda, A. Das, Z. Wu, J. Ernst and A. Roy-Chowdhury, “Weakly Supervised Summarization of Web Videos”, IEEE International Conference on Computer Vision, 2017.
45. R. Panda, A. H. Bhuiyan, V. Murino, A. Roy-Chowdhury, “Unsupervised Adaptive Re-identification in Open World Dynamic Camera Networks”, IEEE Conf. on Computer Vision and Pattern Recognition, 2017 (**Spotlight - Acceptance Rate 8%**).
46. R. Panda, A. Roy-Chowdhury, “Collaborative Summarization of Topic-Related Videos”, IEEE Conf. on Computer Vision and Pattern Recognition, 2017.
47. S. Paul, J.H. Bappy, A. Roy-Chowdhury, “Non-Uniform Subset Selection for Active Learning in Structured Data”, IEEE Conf. on Computer Vision and Pattern Recognition, 2017.
48. J.H. Bappy, S. Paul, A. Roy-Chowdhury, “The Impact of Typicality for Informative Representative Selection”, IEEE Conf. on Computer Vision and Pattern Recognition, 2017.
49. J. H. Bappy, S. Paul, A. Roy-Chowdhury, “Online Adaptation for Joint Scene and Object Classification”, European Conf. on Computer Vision, 2016.

50. N. Martinel, C. Micheloni, A. Roy-Chowdhury, “Temporal Model Adaptation for Person Re-Identification”, European Conf. on Computer Vision, 2016.
51. N. C. Mithun, R. Panda, A. Roy-Chowdhury, “Generating Diverse Image Datasets with Limited Labeling”, ACM Multimedia, 2016.
52. M. Hasan, J. Choi, J. Neumann, A. Roy-Chowdhury, L.S. Davis, “Learning Temporal Regularity in Video Sequences”, IEEE Conf. on Computer Vision and Pattern Recognition, 2016.
53. M. Hasan, A. Roy-Chowdhury, “Context-Aware Active Learning of Activity Recognition Models”, IEEE Intl. Conf. on Computer Vision, 2015.
54. A. Chakraborty, A. Roy-Chowdhury, “Context-Aware Activity Forecasting”, Asian Conf. on Computer Vision, 2014.
55. A. Das, A. Chakraborty, A. Roy-Chowdhury, “Consistent Re-identification In A Camera Network”, European Conf. on Computer Vision, 2014.
56. M. Hasan, A. Roy-Chowdhury, “Continuous Learning of Human Activity Models Using Deep Nets”, European Conf. on Computer Vision, 2014.
57. M. Hasan, A. Roy-Chowdhury, “Incremental Activity Modeling and Recognition in Streaming Videos”, IEEE Computer Vision and Pattern Recognition, 2014.
58. T. Dao, S. Krishnamurthy, A. Roy-Chowdhury, T. LaPorta, “Managing Redundant Content in Bandwidth Constrained Wireless Networks”, CoNEXT 2014. (**Oral**)
59. R. Srinivasan, C. Rudolph, A. Roy-Chowdhury, “Recognizing the Royals - Leveraging Computerized Face Recognition for Identifying Subjects in Ancient Artworks”, ACM Multimedia, 2013.
60. Y. Zhu, N. Nayak, A. Roy-Chowdhury, “Context-Aware Modeling and Recognition of Activities in Video”, IEEE Conf. on Computer Vision and Pattern Recognition, 2013 (**Oral - Acceptance Rate ~ 3.2%**).
61. A. Kamal, J.A. Farrell, A. Roy-Chowdhury, “Information Consensus for Distributed Multi-Target Tracking”, IEEE Conf. on Computer Vision and Pattern Recognition, 2013.
62. M. Tataw, V. Reddy, A. Roy-Chowdhury, “Alignment of Real-Time Live-Cell Growth Data for Quantitative Analysis of Growth at the Shoot Apex of *Arabidopsis thaliana*”, ACM Conference on Bioinformatics, Computational Biology and Biomedicine, 2012.
63. R. Srinivasan and A. Roy-Chowdhury, “Features With Feelings - Incorporating User Preferences in Video Categorization”, Asian Conf. on Computer Vision, 2012.
64. U. Gaur, Y. Zhu, B. Song, A. Roy-Chowdhury, “A ‘String of Feature Graphs’ Model for Recognition of Complex Activities in Natural Videos”, IEEE Conf. on Computer Vision, 2011 (**Oral - Acceptance Rate ~ 4.5%**).
65. A. Chakraborty, R. Yadav, G. V. Reddy, A. Roy-Chowdhury, “Cell Resolution 3D Reconstruction of Developing Multilayer Tissues from Sparsely Sampled Volumetric Microscopy Images”, IEEE Intl. Conf. on Bioinformatics and Biomedicine, 2011.

66. M. Liu, H. Peng, A. Roy-Chowdhury, E. Myers, “3D Neuron Tip Detection in Volumetric Microscopy Images”, *IEEE Intl. Conf. on Bioinformatics and Biomedicine*, 2011.
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Other Referred Conference Publications

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2. A. Aich, K. C. Peng, A. Roy-Chowdhury, “Cross-Domain Video Anomaly Detection without Target Domain Adaptation”, IEEE/CVF Winter Conf. on Applications of Computer Vision, 2023.
3. S. Nayak, O. Goldstein, A. Roy-Chowdhury, “Semantics Guided Contrastive Learning of Transformers for Zero-shot Temporal Activity Detection”, IEEE/CVF Winter Conf. on Applications of Computer Vision, 2023.
4. A. Aich, S. Li, C. Song, S. Krishnamurthy, S. Asif, A. Roy-Chowdhury, “Leveraging Local Patch Differences in Multi-Object Scenes for Generative Adversarial Attacks”, IEEE/CVF Winter Conf. on Applications of Computer Vision, 2023.
5. H. Teng, D. Chatziparaschis, X. Kan, A. Roy-Chowdhury, K. Karydis, “Centroid Distance Keypoint Detector for Colored Point Clouds”, IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2023.
6. G. Mazaheri, A. Roy-Chowdhury, “Detection and Localization of Facial Expression Manipulations”, Winter Conf. on Computer Vision, 2021.
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8. A. Gupta, A. Aich, K. Rodriguez, G. Venugopala Reddy, A. Roy-Chowdhury, “Deep Quantized Representation for Enhanced Reconstruction”, International Symposium on Biomedical Imaging Workshop, 2020.
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Invited Book Chapters

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2. S. Paul, A. Roy-Chowdhury, “Learning with Limited Supervision: Static and Dynamic Tasks”, Advanced Methods and Deep Learning in Computer Vision (Eds. R. Davies, M. Turk, O. Camps, S. Sarkar), Elsevier, 2022.
3. A. Roy-Chowdhury, R. Panda, “Scalable Person Re-identification: Beyond Supervised Approaches”, Deep Learning-Based Face Analytics (Eds. N. Ratha, R. Chellappa), Springer, 2021.
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Magazine Articles

- National Geographic, "About Face", November 2003, pp 18-19. (Featured our work on face recognition under variations of pose, illumination and disguise.)

Patents

- Inventors: R.4 Chellappa, A. Roy-Chowdhury, S. Srinivasan, "Method of three-dimensional object reconstruction from a video sequence using a generic model", United States Patent Number 7,184,071, Issued Feb. 27, 2007.
- Inventors: P. Keaton, A. Roy-Chowdhury, "A Method and Apparatus for Generating 3D Models from Uncalibrated Views", US Patent 7289662, Issued Oct. 30, 2007.
- Inventors: B. Song, C. Ding, C. Soto, A. Roy-Chowdhury, "Distributed Multi-target Tracking In A Self-Configuring Camera Network", US Patent Application 12/819,975, Filing Date: June 21, 2010.