Selected Recent Publications in International Conferences/Symposiums/Workshops:

1. Koustav Chowdhury, Bibhabasu Mandal, Sourav De, Sagar Ghosh, **Swagatam Das**, Debolina Paul, Saptarshi Chakraborty, Convex Clustering Redefined: Robust Learning With the Median of Means Estimator, Accepted for presentation, ***Main Track - The Fortieth AAAI Conference on Artificial Intelligence (AAAI 2026).***

2. Supratik Basu, Jyotishka Ray Choudhury, Debolina Paul, **Swagatam Das**: Dirichlet Process-Based Robust Clustering Using the Median-of-Means Estimator. ***Proceedings of the Thirty-Fourth International Joint Conference on Artificial Intelligence (IJCAI) 2025, Main Track.*** Pages 4770-4778. https://doi.org/10.24963/ijcai.2025/531.

3. Debanjan Dutta, Faizanuddin Ansari, and **Swagatam Das**, Assessing the Limits of In-Context Learning beyond Functions using Partially Ordered Relation, ***International Joint Conference on Natural Language Processing & Asia-Pacific Chapter of the Association for Computational Linguistics - 14th IJCNLP–AACL 2025***.

4. Indranil Ojha, Kushal Bose, and **Swagatam Das**. 2025. FairSplit: Mitigating Bias in Graph Neural Networks through Sensitivity-based Edge Partitioning. In Proceedings of the ***34th ACM International Conference on Information and Knowledge Management (CIKM '25). Association for Computing Machinery***, New York, NY, USA, 5074–5078. https://doi.org/10.1145/3746252.3760951

5. N. Raghav, A. Gupta, M. Sahidullah and **Swagatam Das**, "Self-Tuning Spectral Clustering for Speaker Diarization," ***ICASSP 2025 - 2025 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP),*** Hyderabad, India, 2025, pp. 1-5, doi: 10.1109/ICASSP49660.2025.10890194.

6. Sharanya Dasgupta, Sujoy Nath, Arkaprabha Basu, Pourya Shamsolmoali, **Swagatam Das**: HalluShift: Measuring Distribution Shifts towards Hallucination Detection in LLMs. ***International Joint Conference on Neural Networks (IJCNN)*** 2025: 1-8.

7. Faizanuddin Ansari, Tapabrata Chakraborti, and **Swagatam Das**, Algorithmic Fairness in Lesion Classification by Mitigating Class Imbalance and Skin Tone Bias, In: Linguraru, M.G., *et al.* ***Medical Image Computing and Computer Assisted Intervention – MICCAI 2024***.

8. Faizanuddin Ansari, Agnish Bhattacharya, Biswajit Saha, and **Swagatam Das**, Mo2E: Mixture of Two Experts for Class-Imbalanced Learning from Medical Images, ***2024 IEEE International Symposium on Biomedical Imaging (ISBI).***

9. Debanjan Dutta, Anish Chakraborty, **Swagatam Das**, Lost in Translation: GANs' Inability to Generate Simple Probability Distributions, The Second Tiny Papers Track at the ***12th International Conference on Learning Representations*** (***ICLR 2024)***, **invited to present (notable)**.

10. Indranil Ojha, Kushal Bose, and **Swagatam Das**, Affinity-based Homophily: Can we measure homophily of a graph without using node labels? The Second Tiny Papers Track at the ***12th International Conference on Learning Representations*** (***ICLR 2024)***, **invited to present.**

11. Shounak Datta, Sankha Subhra Mullick, Anish Chakrabarty, and **Swagatam Das**, Interval Bound Interpolation for Few-shot Learning with Few Tasks, Accepted for ***40th International Conference on Machine Learning (ICML 2023)***, Hawaii Convention Center, USA.

12. Chandramauli Chakrabarty, Sayan Paul, Saptarshi Chakraborty, and **Swagatam Das**, Clustering High-dimensional Data with Ordered Weighted L1 Regularization, Proceedings of the ***26-th International Conference on Artificial Intelligence and Statistics (AISTATS 2023)***, PMLR 206: 7176 - 7189, 2023.

13. Sandipan Dhar, P. Banerjee, Nanda D. Jana and **Swagatam Das**, Voice Conversion Using Feature Specific Loss Function Based Self-Attentive Generative Adversarial Network, ***2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2023)***, Rhodes Island, Greece, 2023, pp. 1-5, doi: 10.1109/ICASSP49357.2023.10095069.

14. Abhishek Kumar, **Swagatam Das**, and Rammohan Mallipeddi, UEQMS: UMAP Embedded Quick Mean Shift Algorithm for High Dimensional Clustering. ***Proceedings of the AAAI Conference on Artificial Intelligence (AAAI 2023)***, 37(7), 8386-8395. https://doi.org/10.1609/aaai.v37i7.26011, **Accepted for Oral Presentation**.

15. Abhishek Kumar, Oladayo S. Ajani, **Swagatam Das**, Rammohan Mallipeddi, GridShift: A Faster Mode-Seeking Algorithm for Image Segmentation and Object Tracking, ***Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022***, pp. 8131 - 8139, **Accepted for Oral Presentation**.

16. Anish Chakrabarty and **Swagatam Das**, Statistical Regeneration Guarantees of the Wasserstein Autoencoder with Latent Space Consistency, ***NeurIPS 2021 (Thirty-fifth Conference on Neural Information Processing Systems)***, **Spotlight Acceptance**.

17. Debolina Paul, Saptarshi Chakraborty, **Swagatam Das**, Jason Xu, Uniform Concentration Bounds toward a Unified Framework for Robust Clustering, ***NeurIPS 2021 (Thirty-fifth Conference on Neural Information Processing Systems)***, **Spotlight Acceptance.**

18. Saptarshi Chakraborty, Debolina Paul, and Swagatam Das. "Automated clustering of high-dimensional data with a feature weighted mean shift algorithm." ***Proceedings of the AAAI Conference on Artificial Intelligence***. Vol. 35. No. 8. 2021.

19. Sayak Dey, **Swagatam Das**, and Rammohan Mallipeddi. The sparse minmax k-means algorithm for high-dimensional clustering, ***IJCAI* 2020 (*29th International Joint Conference on Artificial Intelligence*)**, pp. 2103 - 2110, 2020.

20. Saptarshi Chakraborty, Debolina Paul, **Swagatam Das**, and Jason Xu. Entropy regularized power k-means clustering, ***AISTATS* 2020 (*The 23rd International Conference on Artificial Intelligence and Statistics*)**, pp. 691 - 701, Palermo, Sicily, Italy, June 3 - 5, 2020.

21. Abhishek Kumar, **Swagatam Das**, and Ivan Zelinka. A modified covariance matrix adaptation evolution strategy for real-world constrained optimization problems. In ***ACM Proceedings of the 2020 Genetic and Evolutionary Computation Conference Companion (GECCO '20)***. Association for Computing Machinery, New York, NY, USA, 11–12. DOI: https://doi.org/10.1145/3377929.3398185.

22. Abhishek Kumar, **Swagatam Das**, and Ivan Zelinka. A self-adaptive spherical search algorithm for real-world constrained optimization problems. In ***ACM Proceedings of the 2020 Genetic and Evolutionary Computation Conference Companion (GECCO '20)***. Association for Computing Machinery, New York, NY, USA, 13–14. DOI:https://doi.org/10.1145/3377929.3398186

23. S. S. Mullick, S. Datta and S. Das, "Generative Adversarial Minority Oversampling," *2019 **IEEE/CVF International Conference on Computer Vision (ICCV)***, Seoul, Korea (South), 2019, pp. 1695-1704, doi: 10.1109/ICCV.2019.00178.

24. Debolina Paul, Saptarshi Chakraborty, **Swagatam Das**, and Ivan Zelinka. On the non-convergence of differential evolution: some generalized adversarial conditions and a remedy. In ***Proceedings of the Genetic and Evolutionary Computation Conference Companion (GECCO '19)***, Manuel López-Ibáñez (Ed.). ACM, New York, NY, USA, 265-266. DOI: https://doi.org/10.1145/3319619.3322007.

25. Quoc Bao Diep, Ivan Zelinka, and **Swagatam Das**. Self-organizing migrating algorithm for the 100-digit challenge, In ***Proceedings of the Genetic and Evolutionary Computation Conference Companion (GECCO '19)***, Manuel López-Ibáñez (Ed.). ACM, New York, NY, USA, 3-4. DOI: https://doi.org/10.1145/3319619.3326750.