SILADITTYA MANNA

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PROFESSIONAL PROFILE

- Research Fellow focused on exploring the domain of self-supervised learning and its applications to various tasks.
- Successfully capable of thinking of novel ideas and quickly implementing them as well.
- Efficiently handled multiple projects.
- Successfully supervised multiple interns and students as well.

RESEARCH INTERESTS

Self-Supervised Learning, Computer Vision, Medical Image Analysis

ROLES OF RESPONSIBILITIES

- Successfully mentored Post-Graduate students from IIT Kharagpur, and ISI, Kolkata.
- Efficiently mentored interns on multiple projects resulting in successful publications.
- Collaborated with several interns as well for successful publications.

SKILLS

Technical Skills	PyTorch, Tensorflow, Machine Learning, Data Analysis, Data Visualization, Microsoft Word, Microsoft Excel, LaTeX
Soft Skills	Presentation, Project management, Teamwork, Critical thinking, Project collaboration

EDUCATION

Ph.D. (Computer Science) Computer Vision and Pattern Recognition Unit, Indian Statistical Institute, Kolkata	Expected Date of Thesis Submission December 2023
M. Tech (Electronics and Telecommunication Engineering), IIEST, Shibpur First Class with Honors (CGPA 8.9, Silver Medallist)	2018 - 2019
B. Tech (Electronics and Telecommunication Engineering), IIEST, Shibpur First Class with Honors (CGPA 8.8)	2014 - 2018

JOURNAL PUBLICATIONS

- S. Manna*, D. Das*, S. Bhattacharya, U. Pal and S. Chanda, "**PLSM: A Parallelized Liquid State Machine for Unintentional Action Detection**," in IEEE Transactions on Emerging Topics in Computing, vol. 11, no. 2, pp. 474-484, 1 April-June 2023, doi: 10.1109/TETC.2022.3211011.

- S. Manna, S. Bhattacharya and U. Pal, "**Self-supervised representation learning for detection of ACL tear injury in knee MR videos**," Pattern Recognition Letters, Volume 154, 2022, Pages 37-43, ISSN 0167-8655, https://doi.org/10.1016/j.patrec.2022.01.008.

- S. Manna, S. Bhattacharya and U. Pal, (2022). **SKID: Self-Supervised Learning for Knee Injury Diagnosis from MRI Data**. ArXiv. abs/2104.10481 (2021) - **IEEE Transactions on Artificial Intelligence** (Submitted after revision)

- S. Manna, U. Pal and S. Bhattacharya. "**MIO : Mutual Information Optimization using Self-Supervised Binary Contrastive Learning**," ArXiv. abs/2111.12664 (2021) - **IEEE Transactions on Pattern Analysis and Machine Intelligence** (Under review)

CONFERENCE PUBLICATIONS

- S. Chattopadhyay, S. Manna, S. Bhattacharya and U. Pal, "**SURDS: Self-Supervised Attention-guided Reconstruction and Dual Triplet Loss for Writer Independent Offline Signature Verification**," 2022 26th International Conference on Pattern Recognition (ICPR), Montreal, QC, Canada, 2022, pp. 1600-1606, doi: 10.1109/ICPR56361.2022.9956442.

- S. Manna, S. Chattopadhyay, S. Bhattacharya and U. Pal, "**SWIS: Self-Supervised Representation Learning for Writer Independent Offline Signature Verification**," 2022 IEEE International Conference on Image Processing (ICIP), Bordeaux, France, 2022, pp. 1411-1415, doi: 10.1109/ICIP46576.2022.9897562.

- S. Manna, S. Bhattacharya, and U. Pal. 2021. "**Interpretive self-supervised pre-training: boosting performance on visual medical data**," In Proceedings of the Twelfth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP '21). Association for Computing Machinery, New York, NY, USA, Article 15, 1–9. https://doi.org/10.1145/3490035.3490273

EXTRA-CURRICULAR ACTIVITIES

- Actively write blog posts on The Owl page on Medium with 2K+ views and 1K+ reads per week.

- Learning to play Drums.

REFERENCES

- Ph.D. Supervisor: Prof. Umapada Pal

- Ph.D. Mentor: Dr. Saumik Bhattacharya