Rwiddhi Chakraborty

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🌐 http://rwchakra.github.io/

Research Interests

- **Embeddings** Designing novel embedding spaces for learning from limited labelled data.
- **Alignment** Incorporating multi-modal representations and aligning them in a self-supervised manner.
- **Interpretability** Understanding the representation of world concepts in foundation models.

Education

2021 –	**Ph.D. UiT The Arctic University of Norway** FRIPRO Project *MedEx* financed by the Research Council of Norway.
2019 – 2021	**M.Sc. Informatics (Artificial Intelligence), University of Lugano** Grade: 9.04/10 (*Summa Cum Laude*) Thesis title: *White Box Out-of-Distribution Supervision in Convolutional Neural Networks.* Thesis Grade: 9.5/10

Research Publications

1. D. J. Trosten, R. Chakraborty, S. Løkse, K. K. Wickstrøm, R. Jenssen, and M. C. Kampffmeyer, *Hubs and hyperspheres: Reducing hubness and improving transductive few-shot learning with hyperspherical embeddings*, 2023. arXiv: 2303.09352 [`cs.CV`].

2. M. Weiss, R. Chakraborty, and P. Tonella, "A review and refinement of surprise adequacy," in *2021 IEEE/ACM Third International Workshop on Deep Learning for Testing and Testing for Deep Learning (DeepTest)*, 2021, pp. 17–24. 🔗 DOI: 10.1109/DeepTest52559.2021.00009.

Skills

Languages	English, Bengali, Hindi
Coding	Python, MATLAB, C, HTML, Javascript, Solidity
Libraries and Frameworks	PyTorch, TensorFlow, Scipy/Numpy/Pandas/Sklearn.
Misc.	Docker, Git, Bash, LaTeX typesetting and publishing.

Projects

2022	**YoloBar**, Hackathon at the Visual Intelligence Summer School, Porto. Automatic segmentation of courier packages. Code: https://github.com/rwchakra/YoloBar
2021	**Mrs. B Recycling** Build a trash classifier to automate the process of trash division in recycling bins across Lugano. Demo: https://zealous-colden-f8d2ea.netlify.app