

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

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|--------------------------|----------------------------------------------------------------------------------|
| Languages | 📌 English, Bengali, Hindi |
| Coding | 📌 Python, MATLAB, C, HTML, Javascript, Solidity |
| Libraries and Frameworks | 📌 PyTorch, TensorFlow, Scipy/Numpy/Pandas/Sklearn. |
| Misc. | 📌 Docker, Git, Bash, L ^A T _E X 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>

*Equal contribution

†Accepted to CVPR 2023