

# Rwiddhi Chakraborty

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🌐 <http://rwchakra.github.io/>



## Research Interests

- 📌 **Embeddings** Designing novel embedding spaces for learning from limited labelled data.
- 📌 **Interpretability** Understanding the representation of world concepts in foundation models.
- 📌 **Bias** Diagnosing spurious correlations and bias in foundation models for Trustworthy and Ethical AI.

## Education

- 2023 – 📌 **Carnegie Mellon University**  
Visiting Research Scholar, Human Sensing Lab, advised by Prof. Fernando De La Torre.
- 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. Wickstrøm, R. Jenssen, and M. C. Kampffmeyer, “Hubs and hyperspheres: Reducing hubness and improving transductive few-shot learning with hyperspherical embeddings,” *2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 7527–7536, 2023. 🔗 URL: <https://api.semanticscholar.org/CorpusID:257557374>.
- 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  |
| Coding                   | 📌 Python, MATLAB, C, HTML, Javascript, Solidity                                  |
| Libraries and Frameworks | 📌 PyTorch, TensorFlow, Scipy/Numpy/Pandas/Sklearn.                               |
| Misc.                    | 📌 Docker, Git, Bash, L <sup>A</sup> T <sub>E</sub> 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>

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\*Equal contribution