

# Dipam Goswami

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## Education

### Universitat Autònoma de Barcelona

PHD IN COMPUTER SCIENCE

- Research on Continual Learning, Federated Learning

Barcelona, Spain

March 2023 - Present

### Birla Institute of Technology and Science, Pilani

B.E. IN COMPUTER SCIENCE ENGINEERING, M.Sc. IN MATHEMATICS

- Cumulative GPA of 8.35/10

Rajasthan, India

Aug. 2017 - July. 2022

## Publications

- **Goswami D**, Magistri S, Wang K, Twardowski B, Bagdanov AD, van de Weijer J. “Covariances for Free: Exploiting Mean Distributions for Federated Learning with Pre-trained Models” (**Arxiv 2025**)
- **Goswami D**, Wang L, Twardowski B, van de Weijer J. “Query Drift Compensation: Enabling Compatibility in Continual Learning of Retrieval Embedding Models” (**CoLLAs 2025**)
- Gomez-Villa A, **Goswami D**, Wang K, Bagdanov AD, Twardowski B, van de Weijer J. “Exemplar-free Continual Representation Learning via Learnable Drift Compensation.” (**ECCV 2024**)
- **Goswami D**, Soutif-Cormerais A, Liu Y, Kamath S, Twardowski B, van de Weijer J. “Resurrecting Old Classes with New Data for Exemplar-Free Continual Learning.” (**CVPR 2024**)
- **Goswami D**, Twardowski B, Van De Weijer J. “Calibrating Higher-Order Statistics for Few-Shot Class-Incremental Learning with Pre-trained Vision Transformers.” (**CLVision Workshop - CVPR 2024**)
- **Goswami D**, Liu Y, Twardowski B, van de Weijer J. “FeCAM: Exploiting the Heterogeneity of Class Distributions in Exemplar-Free Continual Learning”. (**NeurIPS 2023**)
- Liu Y, Cong Y, **Goswami D**, Liu X, van de Weijer J. “Augmented Box Replay: Overcoming Foreground Shift for Incremental Object Detection”. (**ICCV 2023**)
- Aggrawal HO, **Goswami D**, Agarwal V. “Bounding Box Priors for Cell Detection with Point Annotations”. (**ISBI 2023**)
- **Goswami D**, Schuster R, van de Weijer J, Stricker D. “Attribution-aware Weight Transfer: A Warm-Start Initialization for Class-Incremental Semantic Segmentation”. (**WACV 2023**)

## Experience

### Computer Vision Center, Universitat Autònoma de Barcelona (Dr. Joost van de Weijer, Dr. Bartłomiej Twardowski)

PRE-DOCTORAL RESEARCHER, LEARNING AND MACHINE PERCEPTION TEAM (LAMP)

- Federated Learning with Pre-trained Models
- Continual Learning for Information Retrieval
- Exemplar-Free Class-Incremental Learning, Continual Few-shot Learning and Continual Object Detection

Barcelona, Spain

Sept. - Nov. 2022 | March 2023 - Present

### Sony AI (Dr. Joan Serra)

ASSISTANT AI RESEARCHER

- Exploring data attribution methods for Diffusion Models

Barcelona, Spain

June 2025 - Present

### KU Leuven (Dr. Guido van de Ven, Prof. Tinne Tuytelaars)

RESEARCH INTERN, PSI GROUP

- Investigating modality gap in Vision-Language Models

Leuven, Belgium

January 2025 - March 2025

### IDEAS NCBR (Dr. Bartłomiej Twardowski, Dr. Tomasz Trzcinski)

RESEARCH INTERN, ZERO-WASTE MACHINE LEARNING GROUP

- Continual Learning with Dense Retrieval Embedding Models

Warsaw, Poland

June 2024 - August 2024

### German Research Center for Artificial Intelligence - DFKI (Prof. Didier Stricker)

RESEARCH ASSISTANT, AUGMENTED VISION DEPARTMENT

- Class-Incremental Learning for Semantic Segmentation

Kaiserslautern, Germany

Feb 2022 - July 2022

- Monocular Depth Estimation to estimate plant heights from drone videos and generation of their 3D representations from depth maps

## **Academic Experience and Contributions**

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<b>Reviewer in Conferences</b>	NeurIPS, ICLR, ICML, AI STATS, CVPR, ECCV, ICCV, CoLLAs, WACV, BMVC
<b>Reviewer in Journals</b>	TPAMI, IJCV, TMLR, TNNLS, TIP
<b>Conferences Attended</b>	ICCV 2023; NeurIPS 2023; CVPR 2024