Dipam **Goswami**

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Education

Universitat Autonoma de Barcelona — *Barcelona, Spain*

PhD in Computer Science — *March 2023 - Present*

- Research on Continual Learning, Federated Learning

Birla Institute of Technology and Science, Pilani — *Rajasthan, India*

B.E. in Computer Science Engineering, M.Sc. in Mathematics — *Aug. 2017 - July. 2022*

- Cumulative GPA of 8.35/10

Experience

Computer Vision Center (Dr. Joost van de Weijer, Dr. Bartlomiej Twardowski) — *Barcelona, Spain*

Pre-doctoral Researcher, Learning and Machine Perception Team (LAMP) — *Sept. - Nov. 2022 | March 2023 - Present*

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

Sony AI (Dr. Joan Serra) — *Barcelona, Spain*

Assistant AI Researcher — *June 2025 - Present*

- Exploring training data attribution methods for **Diffusion Models**

KU Leuven (Dr. Gido van de Ven, Prof. Tinne Tuytelaars) — *Leuven, Belgium*

Research Intern, PSI Group — *January 2025 - March 2025*

- Investigating modality gap in **Vision-Language Models**

IDEAS NCBR (Dr. Bartlomiej Twardowski) — *Warsaw, Poland*

Research Intern, Zero-waste Machine Learning Group — *June 2024 - August 2024*

- Continual Learning with **Dense Retrieval Embedding Models**

German Research Center for Artificial Intelligence - DFKI (Prof. Didier Stricker) — *Kaiserslautern, Germany*

Research Assistant, Augmented Vision Department — *Feb 2022 - July 2022*

- Class-Incremental Learning for **Semantic Segmentation**

Teaching Assistant (Dr. Vinti Agarwal) — *Rajasthan, India*

BITS Pilani, Department of Computer Science and Information Systems — *August 2021 - December 2021*

- Conducting weekly Lab sessions and assisting in preparing problems and solutions for the **Graph Mining** course

IMEC, Belgium (Dr. Bappaditya Dey, Dr. Sandip Halder) — *Leuven (Remote)*

Research Intern — *May 2021 - July 2021*

- **Anomaly Detection** for CD-SEM images to detect defects in manufacturing process

Chloropy Technologies Pte Ltd. — *Singapore (Remote)*

Computer Vision Intern — *May 2020 - July 2020*

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

Publications

- Liu Y, Hong Q, Huang L, Gomez-Villa A, **Goswami D**, Liu X, van de Weijer J, Tian Y. *"Continual Learning for VLMs: A Survey and Taxonomy Beyond Forgetting."* (Preprint)
- Yu L, Tao Z, **Goswami D**, Yao H, Twardowski B, Van de Weijer J, Xu C. *"Exploiting the semantic knowledge of pre-trained text-encoders for continual learning"* (Preprint)
- **Goswami D**, Magistri S, Wang K, Twardowski B, Bagdanov AD, van de Weijer J. *"Covariances for Free: Exploiting Mean Distributions for Training-free Federated Learning"* (**NeurIPS 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**)

Academic Experience and Contributions

Reviewer in Conferences	NeurIPS, ICLR, ICML, AI STATS, CVPR, ECCV, ICCV, CoLLAs, WACV, BMVC
Reviewer in Journals	TPAMI, IJCV, TMLR, TNNLS, TIP
Conferences Attended	ICCV 2023; NeurIPS 2023; CVPR 2024, CoLLAS 2025