

Bartosz Cywiński

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EDUCATION

PhD Computer Science – Machine Learning

10/24 – 10/28

Warsaw University of Technology

Computer Vision Lab

- Research in the area of mechanistic interpretability of vision models

M.Sc. Computer Science

02/23 – 09/24

Warsaw University of Technology

The Faculty of Electronics and Information Technology

- **GPA:** 4.7/5, Summa Cum Laude
- **Thesis title:** Continual learning with diffusion models

B.Sc. Computer Science

10/19 – 02/23

Warsaw University of Technology

The Faculty of Electronics and Information Technology

- **GPA:** 4.47/5
- **Thesis title:** Adaptation of a continual learning method that alleviates the problem of forgetting for Generative Adversarial Networks

PUBLICATIONS

1. **B. Cywiński**, K. Deja
SAeUron: Interpretable Concept Unlearning in Diffusion Models with Sparse Autoencoders Under review
2. Ł. Staniszewski*, **B. Cywiński***, F. Boenisch, K. Deja, A. Dziedzic
Precise Parameter Localization for Textual Generation in Diffusion Models ICLR 2025
3. **B. Cywiński**, K. Deja, T. Trzciński, B. Twardowski, Ł. Kuciński
GUIDE: Guidance-based Incremental Learning with Diffusion Models Under review
4. K. Deja, **B. Cywiński**, J. Rybarczyk, T. Trzciński
Adapt & Align: Continual Learning with Generative Models' Latent Space Alignment

EXPERIENCE

Research Intern

07/24 – 09/24

CISPA Helmholtz Center for Information Security – SprintML Lab

- Research in the area of interpretability of diffusion generative models

Machine Learning Engineer

11/23 – 05/24

AI Clearing

- Improved solar modules classification accuracy by 5% implementing algorithm based on segmentation masks
- Developed deep learning models for construction progress tracking on solar farms

Research Intern

04/23 – 09/23

IDEAS NCBR – Computer Vision Group

- Research in the area of continual learning with diffusion generative models

Machine Learning Engineer

03/22 – 03/23

Asseco Business Solutions

- Researched and adapted new deep learning architectures for object detection, enhancing product detection quality on retail shelves
- Implemented training pipelines in PyTorch for segmentation models, improving logging and error analysis
- Revamped the data labeling workflow by integrating active learning techniques optimizing the selection of data

AWARDS AND ACHIEVEMENTS

- 3rd place in the XLI national competition for the best computer science master theses organized by The Polish Information Processing Society.
- Honorable mention in the III national competition for the best computer science bachelor theses organized by The Polish Information Processing Society.

SKILLS

Coding: Python, SQL, MATLAB, R, Git

Python libraries: PyTorch, PyTorch Lightning, Diffusers, Pandas, NumPy, Matplotlib, Scikit-learn, OpenCV, WandB

Databases: PostgreSQL, PL/SQL, MySQL

Misc.: Algorithms and data structures, fundamental ML algorithms, deep learning

Languages: *English:* advanced reading, writing, and speaking; *Polish:* native