


KONRAD KARANOWSKI

Machine Learning Researcher and Engineer

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 <https://github.com/konrad-karanowski>

 <https://konrad-karanowski.github.io>

 https://scholar.google.com/citations?user=_Cn3jmsAAAAJ&hl=pl

PROFILE

I am a final-year student pursuing a Master's Degree in Artificial Intelligence at Wroclaw University of Science and Technology. I have over three years of experience in machine learning, both commercially and in academia. Along this journey, I've co-authored 11 scientific publications. My main interests include topics such as generative AI, probabilistic machine learning, AI in medicine and AI in biochemistry. I am currently collaborating with researchers from the Federal Institute of Technology Zurich (ETHZ) on the applications of artificial intelligence in electron cryomicroscopy (CryoEM).

SKILLS

- Used Technologies Python, Pandas, SQL, Matplotlib, Plotly, Jupyter Notebook, PyTorch, PyTorch Lightning, Scikit-Learn, Numpy, OpenCV, Transformers, Diffusers, Git, DVC, Hydra, Wandb, Linux
- Known concepts Neural Networks, Computer Vision, Natural Language Processing, Generative AI, Probabilistic Machine Learning
- Other skills Teamwork, Self-organisation, Scientific methodology

WORK EXPERIENCE

Machine Learning Specialist

January 2023 - present

BIOCAM

I was responsible for applying generative models to capsule endoscopy images and developing new methods of data augmentation. I had the opportunity to work with models such as Denoising Diffusion Probabilistic Models or Latent Diffusion Models. My work resulted in a pipeline that improves the performance of classifiers by up to 4 percentage points for rare pathologies.

NLP Engineer / Researcher

August 2021 - February 2023

CLARIN-PL

I was responsible for doing research on natural language processing in subjective tasks, taking into account the context of the user. I also worked on the development of an Automatic Speech Recognition system for the Polish language. I had the opportunity to work with models such as Transformers, Whisper or Normalizing Flows. My work resulted in 5 scientific papers.

Junior Data Scientist (Intern)

September 2020 - January 2021

ESPORTSLABGG

I was working on image classification and object detection using neural networks. I have worked with models such as FasterRCNN or YOLO.

EDUCATION

Master's Degree in Artificial Intelligence

2023-present

WROCLAW UNVIERSITY OF SCIENCE AND TECHNOLOGY

Achievements

- Scholarship of the Minister of Science and Higher Education for Significant Achievements

Activities

- Member of the genwro.AI research group led by Prof. Maciej Zięba
- Member of the BioMedical.AI scientific circle

SDU Summer School 2022, Deep Learning

2022

SYDDANSK UNIVERSITAT

Grade: A

Bachelor's Degree in Applied Computer Science

2023-2024

WROCLAW UNVIERSITY OF SCIENCE AND TECHNOLOGY

Final Grade: A

Activities

- Member of BioMedical.AI scientific circle
- Member of KN Robocik scientific circle

FEATURED PUBLICATIONS

Piotr Miłkowski*, Konrad Karanowski*, Patryk Wielopolski, Jan Kocoń, Przemysław Kazienko, and Maciej Zięba (2023). Modeling Uncertainty in Personalized Emotion Prediction with Normalizing Flows. 2023 IEEE International Conference on Data Mining Workshops (ICDMW), 757-766. [* - denotes equal contribution]

Maciej Zamorski, Michał Stypułkowski, Konrad Karanowski, Tomasz Trzciński and Maciej Zięba (2022). Continual learning on 3D point clouds with random compressed rehearsal. Comput. Vis. Image Underst., 228, 103621.

Marcin Sendera, Marcin Przewięźlikowski, Konrad Karanowski, Maciej Zięba, Jacek Tabor and Przemysław Spurek. "HyperShot: Few-Shot Learning by Kernel HyperNetworks." 2023 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) (2022): 2468-2477. DOI: 10.1109/WACV56688.2023.00250

HOBBIES

- Composing orchestral music
- Man's fashion
- Cooking

LANGUAGES

- Polish - Native
- English - B2/C1