

Monika Wysoczańska

PHD STUDENT · COMPUTER VISION · DEEP LEARNING · MULTIMODAL LEARNING · AVAILABLE FROM MAY 2024

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Education

Warsaw University of Technology

Warsaw

PHD COMPUTER SCIENCE

Oct. 2020 - Oct. 2024

- Advisor: Dr Tomasz Trzciński, associate professor at WUT
- Research topic: Multimodal representation learning in Machine Learning and Computer Vision

Warsaw University of Technology

Warsaw

MSc COMPUTER SCIENCE

Feb. 2017 - Oct. 2019

- Advisor: Dr Tomasz Trzciński
- Thesis title: Multimodal dance classification
- Erasmus Exchange Program: Universidad Politecnica de Madrid (Sep. 2018 - Jan. 2019)

Wroclaw University of Science and Technology

Wroclaw

BSc SYSTEMS ENGINEERING

Oct. 2013 - Jan. 2017

- Advisor: Dr Paweł Świątek
- Graduated with Honors (grade: 5.5/5.5)

Professional Experience

Booking.com

Amsterdam, NL

PHD RESEARCH INTERN

Jul. 2022- Oct. 2022

- Working on image collection summarization with textual guidance

Robotec.ai

Warsaw, PL

MACHINE LEARNING ENGINEER/RESEARCHER

Sep. 2020 - Jun. 2021

- Anomaly detection methods for EdgeAI and 3D object detection in lidar scans

Sport Algorithmics and Gaming

Warsaw, PL

COMPUTER VISION ENGINEER/RESEARCHER

Mar. 2019 - Aug. 2020

- Developing a vision-based system for football analysis, topics included: jersey number recognition and team segmentation

Samsung R&D Institute Poland

Warsaw, PL

JUNIOR DATA SCIENTIST

Feb. 2018 - Aug. 2018

- Working on face recognition, object detection with deep learning methods

Samsung R&D Institute Poland

Warsaw, PL

INTERN

Jun. 2017 - Jan. 2018

- Working on Human In-door positioning and tracking and Automatic configuration of floor plans for Indoor Positioning System

Research Visits

Valeo.ai

Paris, FR

HOST ADVISOR: DR ORIANE SIMEONI

Aug. 2023 - Dec. 2023

- Research topic: Open-Vocabulary Semantic Segmentation

Imagine group - Ecole des Ponts, ParisTech

Champs sur Marne, FR

HOST ADVISOR: DR DAVID PICARD

Sep. 2021 - Dec. 2021; Mar. 2022 -

Jun. 2022; Nov. 2022 - Jan. 2023

- Research topic: Image representations for Visual Reasoning

Selected Publications

CLIP-DINOiser: Teaching CLIP a few DINO tricks, Wysoczanska Monika, Oriane Simeoni, Michael Ramamonjisoa, Tomasz Trzcinski, Andrei Bursuc, Patrick Perez. arxiv 2023

CLIP-DIY: CLIP Dense Inference Yields Open-Vocabulary Semantic Segmentation For-free, Wysoczanska Monika, Michael Ramamonjisoa, Tomasz Trzcinski, Oriane Simeoni. WACV 2024

Tell Me What Is Good About This Property: Leveraging Reviews For Segment-Personalized Image Collection Summarization, Wysoczanska Monika, Beladev Moran, Lastmann Assaraf Karen, Wang Fengjun, Kleinfeld Ofri, Amsalem Gil, Harush Boker Hadas. 2023. IAAI-24 (AAAI 2024)

Towards Unsupervised Visual Reasoning: Do off-the-shelf features know how to reason?, Wysoczanska Monika, Monnier Tom, Trzcinski Tomasz, Picard David. 2022. Workshop on Self-Supervised Learning: Theory and Practice, NeurIPS 2022.

EgoNN: Egocentric Neural Network for Point Cloud Based 6DoF Relocalization at the City Scale, Komorowski Jacek, Wysoczanska Monika, Trzcinski Tomasz. 2021 IEEE Robotics and Automation Letters.

Multimodal Dance Recognition, Wysoczanska Monika, Trzcinski Tomasz. 2020. VISIGRAPP (5: VISAPP).

Skills

- **Programming languages:** Python (advanced), Matlab (basic), C++ (basic)
- **Tools:** PyTorch, OpenCV, Docker, Slurm, Pandas, Numpy, Git
- **Languages:** Polish (mother tongue), English (fluent), French (intermediate), Spanish (basic)

Research Grants

BGF SSHN 2022 - Campus France, French Government

France

Nov. 2022 - Dec. 2022

- Scholarship and living allowance in France for 2-month research visit at Ecole des Ponts, ParisTech

OPUS 2022: Dynamic Neural Networks for Efficient Machine Learning - National Science Center, Poland

Poland

Jan. 2023 - Jan. 2026

- Co-authorship of the grant proposal for a total amount of 1.3M PLN. Principal investigator: Tomasz Trzcinski

Awards & Certificates

2023 **Computational Neuroscience, course certification**, Neuromatch Academy

International

2020 **National Competition for the best Master Thesis in Machine Learning and Data Science, award in Applications track**, Warsaw University of Technology

Poland

Outreach

2023 **Women In Computer Vision @ ICCV2023**, Organizing Committee

Paris, France

2021 **IT for SHE**, Volunteer teacher - Introduction to programming at elementary school

Poland

Teaching Experience

Spring

2021, 2022, 2023 **Computer Vision**, Warsaw University of Technology, Teaching Assistant