Monika Wysoczańska

PhD Student · Computer Vision · Deep Learning · Multimodal Learning

The Faculty of Electronics and Information Technology, Warsaw University of Technology, Nowowiejska 15/19, 00-665 Warsaw

+48 660 477 591 | moniawysoczanska@gmail.com | wysoczanska | monika-wysoczańska-7b2645134

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 classifiation
- Erasmus Exchange Program: Universidad Politecnica de Madrid (Sep. 2018 - Jan. 2019)

Wroclaw University of Sciece 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

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*

- Reaserch topic: Image representations for Visual Reasoning

Selected Publications

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.

MinkLoc++: Lidar and Monocular Image Fusion for Place Recognition, Komorowski Jacek, **Wysoczanska Monika**, Trzcinski Tomasz. 2021 International Joint Conference on Neural Networks (IJCNN).

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

Teaching Experience

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

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

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

Outreach & Professional Development

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

Skills

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