Michał Weiss

email: mikub97@gmail.com | phone: +48 796979101

Education

2023–2025 **University of Warsaw, Faculty of Psychology**
Master of Arts in Cognitive Science (very good with distinction)
Thesis: *Quantifying Movement Coordination in Human–Robot Interaction*
Methods: Recurrence Quantification Analysis (RQA), nonlinear dynamics

2017–2021 **Warsaw University of Technology, Faculty of Electrical Engineering**
Bachelor of Science in Computer Science (Engineering)
Specialization: Software Engineering
Thesis: *Route Optimization using Ant Colony Algorithm*

Professional experience

2020–2025 Teacher of Computer Science & Mathematics, Classical School (iGCSE, A-level)

Scientific interests

- movement coordination, embodied and distributed cognition
- multimodal interaction (gaze, speech, movement)
- quantitative analysis of behavior (time series, recurrence methods)

Skills

- programming: Python, R, Java, Julia
- time-series and dynamical systems analysis (RQA, CRQA, fractal analysis)
- digital signal processing (motion, eye-tracking, ECG)
- interactive data visualization (Plotly Dash, matplotlib, ggplot2, seaborn)
- familiar with of GNU/Linux environment, proficiency in LaTeX

Languages

Polish (native), English (C1/C2), Portuguese (basic)

Internships

2025 - Now Copernicus Science Centre, Warsaw
Research internship on embodied interaction in family interactions (ORTHO exhibit)

2023 -2024 Research internship (50 hours) within NCN SONATINA project (2022/44/C/HS6/00068): *Study of the sense of temporal continuity between episodes of altered perceptual experience.* Tasks included data preprocessing and development of analysis scripts for ECG (Biopac Bionomadix) and eye-tracking (HTC Vive Pro Eye).

Work in research projects

2025 Project on interpersonal coordination with Dr. Julian Zubek (Human Interactivity and Language Lab, UW). Triadic study of interpersonal coordination (father–child–mother) using Cross-Recurrence Quantification Analysis

Teaching experience

- Mathematics & Computer Science (IGCSE, A-levels), Classical School, 2020–2025
- Workshops for youth in programming, logic, and modeling
- Mentor in programming contests and educational projects

Conferences & Summer Schools

2025 *Unboxing Multimodality*, University of Amsterdam (summer school)
2024 13th Peripatetic Conference *Cognitive Systems Modeling*, Zakopane; presentation: *Quantifying Movement Coordination in Human–Robot Interaction*
2023 4th Summer School on Social Human–Robot Interaction, Poland (co-organizer & participant with poster presentation)
2023 VR Summit 2023, Bochum, Germany – 2nd place in international hackathon
2023 12th Peripatetic Conference, Zakopane; organized workshop: *"What is the shape of doubt in the mind of a cognitive scientist?"*
2023 NLM 2023, Leuphana University (summer school on RQA, Fractal Analysis, Convergent Cross-Mapping)
2023 Volunteer at Cognitive Futures in the Arts and Humanities, University of Warsaw
2022 11th Peripatetic Conference *Cognitive Systems Modeling*, Zakopane; poster: *Fractals – a formula for creativity*

Other interests

Beyond my academic work, I am interested in the dialogue between psychology and religion. I explore different perspectives on the human self, both outward and inward, drawing inspiration from Advaita Vedanta, Taoist philosophy, and the tradition of psychoanalysis.