

WERONIKA WOJTAK, PHD

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SKILLS

Python (numpy, pandas, PyTorch),
MATLAB, Microsoft Azure,
Docker, Git, ROS2

Deep Learning, Neural Networks,
Mathematical Modeling,
Dynamical Systems

EDUCATION

PhD in Applied Mathematics

University of Minho, Portugal
2016 – 2021
Grade: Very good

M.S. in Computer Science

University of Zielona Góra, Poland
2012 – 2013
Grade: 5/5

B.S. in Biomedical Engineering

University of Zielona Góra, Poland
2008 – 2012
Grade: 5/5

CERTIFICATES

[Microsoft Certified: Azure AI
Engineer Associate](#)

[Professional Certificate in MLOps
with Azure](#)

[NMA Deep Learning](#)

VOLUNTEERING

Project mentor

NMA Deep Learning July 2023

Guided students in developing a
deep learning project aimed at
classifying brain tumors using MRI
images.

OVERVIEW

As an experienced researcher with a background in applied mathematics and a keen interest in artificial intelligence, my adaptability, problem-solving skills, and commitment to learning make me a strong candidate for the Machine Learning Engineer role. After many years dedicated to academic research, I am now excited to embark on new challenges in the industry. My history of applying mathematical models to real-world problems showcases my ability to quickly grasp new concepts, ensuring effective contributions to complex AI/ML projects.

PROFESSIONAL EXPERIENCE

Senior Development Technician

CCG/ZGDV Institute

July 2023 – present

- Developing a modular and transferable system for human-robot interaction. My work focuses on advancing temporal coordination, error detection, and adaptability across diverse robotic platforms.

Postdoctoral researcher

University of Minho, Centre Algoritmi

Dec 2020 – Jun 2023

- Used Physics-Informed Neural Networks to estimate solutions of neural field equations.
- Continued studying developed models, using them to generate cognitive functions and enhancing vehicles' intelligent behavior for personalized user experiences.
- Published 1 journal article and 2 conference papers.

PhD researcher

University of Minho, Centre of Mathematics

Sep 2016 – Nov 2020

- Developed a novel dynamic neural field model overcoming limitations of traditional models.
- Analyzed model solutions mathematically and numerically.
- Applied the model to cognitive neuroscience, simulating multi-item memory tasks and time interval learning.
- Applied the model to robotics, designing cognitive architectures for human-robot collaboration and autonomous decision-making.
- Published 4 journal articles and 3 conference papers.

Early Stage Researcher (Marie Curie Fellowship)

University of Minho, Centre Algoritmi

Oct 2013 – Aug 2016

- Developed neuro-inspired control architectures for human-robot interaction (HRI).
- Published 2 conference papers.