

# WERONIKA WOJTAK, PHD

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## SKILLS

Python (numpy, pandas, PyTorch),  
MATLAB, Microsoft Azure

Deep Learning, Neural Networks,  
Mathematical Modeling,  
Dynamical Systems, Differential  
Equations, Statistics

## 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 ML 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 ML projects.

## PROFESSIONAL EXPERIENCE

### Senior Development Technician

CCG/ZGDV Institute July 2023 – present

- Developing a learning system to empower intelligent vehicles to understand users' daily driving patterns, enabling predictive assistance for an enhanced user experience.

### 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.