# **WERONIKA WOJTAK, PHD**

w.wojtak@gmail.com · Linkedin · Github · Website · Papers with code

#### **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**

<u>Professional Certificate in MLOps</u> <u>with Azure</u>

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 Data Scientist 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 20

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.