

# Beatriz Pedrosa Cepa

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📍 Esposende, Braga, Portugal



## Affiliation

- Apr 2023 – Present     ◇ **Research Assistant**, High-Assurance Software Laboratory, INESC TEC.
- Out 2021 – Out 2022     ◇ **M.Sc. Student**, High-Assurance Software Laboratory, INESC TEC.

## Education

- Apr 2023 – Present     ◇ **Ph.D. in Informatics**, University of Minho.
- Sep 2017 – Oct 2022     ◇ **M.Sc. in Biomedical Engineering**, University of Minho.  
Specialization: Medical Informatics.  
Dissertation title: *Deep Learning for Image Generation*.
- Sep 2011 – Aug 2017     ◇ **English Course**, The Kids' Club.  
B2 Certification.

## Publications

### Conference Proceedings

- 1 B. Cepa, C. Brito, and A. Sousa, "Generative adversarial networks in healthcare: A case study on mri image generation," in *2023 IEEE 7th Portuguese Meeting on Bioengineering (ENBENG)*, 2023, pp. 48–51.  
DOI: 10.1109/ENBENG58165.2023.10175330.

## Experiences

### M.Sc. Dissertation Supervision

- Sep 2023 – Present     ◇ **Correction of Motion Artifacts in Brain MRI scans using Deep Learning in High-Performance Computing**, INESC TEC and University of Minho.  
Co-supervisor of Alcía Oliveira.  
Co-advised with Cláudia Brito and António Sousa.
- Sep 2022 – Present     ◇ **Benchmarking Distributed Machine Learning Frameworks for Healthcare Use Cases**, INESC TEC and University of Minho.  
Co-supervisor of Luís Branco.  
Co-advised with Cláudia Brito and António Sousa.

### Certification

- Apr 2016     ◇ **Certified Level B2 in English**. Awarded by University of Cambridge.

### Committee Member

- Mar 2024 – Present     ◇ **Student Representative on the School of Engineering Board**, University of Minho.

## Experiences (continued)

- May 2023 – Present     ◇ **Student Representative on the Course Committee of the Doctoral Program in Informatics**, University of Minho.

### Association Member

- Oct 2020 – Apr 2021     ◇ **Vice-Director of the Recreational Department**, Gabinete de Alunos de Engenharia Biomédica (GAEB), University of Minho.

### Event Participation

- April 2024     ◇ **Workshop Speaker at WEEKSHOP**, University of Minho.  
Workshop entitled *Latex + Mendeley*.
- February 2024     ◇ **Workshop Speaker at the XIX Biomedical Engineering Summit**, University of Minho.  
Workshop entitled *Medical Imaging Informatics: A Whole New World*.

### Event Organization

- Oct 2020 – Apr 2021     ◇ **XVI Biomedical Engineering Summit**, University of Minho.  
Member of the Organizing Committee.  
Event dates: 18/02/2021 – 20/02/2021.

### Tutoring

- Sep 2016 – Aug 2017     ◇ **Peer Tutoring**, Escola Secundária c/ 3.º Ciclo Henrique Medina.  
Tutor of 7th grade classes.

## Achievements

- ◇ **Implemented two GAN architectures** (DCGAN and WGAN-GP) to generate MRI images of the brain in a distributed environment.
- ◇ **Collaborated with the School of Psychology** of the University of Minho to study and predict caregiver burden of patients with Alzheimer's Disease.

## Scholarships

- May 2023 – Present     ◇ **Research Grant** (10241/BI-M-ED\_B2/2023).  
Awarded by INESC TEC.
- Mar 2022 – Sep 2022     ◇ **Research Initiation Grant** (9547/BII-E\_B4/2022).  
Awarded by INESC TEC.

## Skills

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| Languages        | <ul style="list-style-type: none"><li>◇ <b>Portuguese.</b> Native language.</li><li><b>English.</b> Reading and Listening: C2; Writing: C1; Speaking: B2.</li><li><b>French.</b> Reading and Listening: B1; Writing and Speaking: A1.</li></ul> |
| Technical Skills | <ul style="list-style-type: none"><li>◇ <b>Python.</b> Machine and Deep Learning models.</li><li><b>Medical Imaging Informatics.</b> Image pre-processing, image generation.</li><li><b>Distributed Computation.</b> SLURM.</li></ul>           |
| Soft Skills      | <ul style="list-style-type: none"><li>◇ Academic Research, Team Work, Problem Solving, Public Speaking.</li></ul>   |