Beatriz Pedrosa Cepa

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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. Thesis 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

Supervision

Sept 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 Alícia Oliveira. Co-advised with Cláudia Brito and António Sousa.
Sept 2022 – Present	◇	**Benchmarking Distributed Machine Learning Frameworks for Healthcare Use Cases**, INESC TEC and University of Minho. Co-supervisor of Alícia Oliveira. 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

Languages	◇ **Portuguese.** Native language.
	English. Reading and Listening: C2; Writing: C1; Speaking: B2.
	French. Reading and Listening: B1; Writing and Speaking: A1.
Technical Skills	◇ **Python.** Machine and Deep Learning models.
	Medical Imaging Informatics. Image pre-processing, image generation.
	Distrubuted Computation. SLURM.
Soft Skills	◇ Academic Research, Team Work, Problem Solving, Public Speaking.