https://scholar.google.com/citations?user=xR33Ko0AAAAJ https://www.linkedin.com/in/pedro-neto-a94862106/

pedroneto_09@hotmail.com https://netopedro.github.io

EDUCATION

FEUP - Faculty of Engineering, Porto, Portugal

PhD - Doctor of Philosophy, Eletrical Engineering, Present Average: 17 out of 20

Aalto University, Espoo, Finland

MSc - Master of Science, Computer Science, April 2020 Average: 4.24 out of 5

ISEP - Porto School of Engineering, Porto, Portugal

BSc - Bachelor of Science, Informatics Engineering, July 2018 Average: 17 out of 20

EXPERIENCE

Machine Learning Research

INESC TEC

Assistant

Porto, Portugal

10/2020-Present

- Biometrics: Improving state-of-the-art methods in face recognition, face presentation attack detection and variations (e.g. masked face recognition).
- Explanability and Interpretability: Applying current methods of explainable artificial intelligence to biometric problems, as well as, developing novel methods for these applications.
- CADPath project: Developing deep learning solutions to diagnose colorectal and cervical cancers from whole slide images. Exploration of weakly supervised approaches.

Research Intern Feedzai

Porto, Portugal 07/2020-09/2020

- Integrated the TRAFFIC (TRAnsformers For Fraud IdentifiCation) project.
- TensorFlow and Keras implementation of transformers on financial fraud use
- Goals ranging from good metric performance, fast computations and autoregressive training.

Machine Learning Research Assistant

Aalto University

09/2019-04/2020 Espoo, Finland

- Implemented a convolutional neural network to classify prostate cancer clinical significant lesions with **0.87 AUC**.
- Implemented a **3D UNet** model to segment the prostate from **3D mpMRI** using T2W and ADC sequences, with 0.915 overlapping area.
- Used a **3D ResNet-18** model to segment prostate cancer lesions.

Summer Machine Learning Intern

INESC TEC

Porto, Portugal

07/2019-08/2019

- Implemented a real-time face recognition system using Pytorch, Opency and a customized dataset to authorize staff into the lab building.

Summer Intern Armis Group Porto, Portugal 06/2017-09/2017

- Developed the backend in C# and the Swift frontend of an iOS application to track in real-time Handball games results and scorers.

SCIENTIFIC PUBLICATIONS

Myope Models - Are face presentation attack detection models short-sighted? Workshops of the 2022 IEEE Winter Conference on Applications of Computer Vision

Pedro C. Neto, Ana F. Sequeira and Jaime S. Cardoso

FocusFace: Multi-task Contrastive Learning for Masked Face Recognition IEEE International Conference on Automatic Face and Gesture Recognition 2021

Pedro C. Neto, Fadi Boutros, Joao Ribeiro Pinto, Naser Damer, Ana F. Sequeira and

Jaime S. Cardoso

My Eyes Are Up Here: Promoting Focus on Uncovered Regions in Masked Face Recognition

BIOSIG 2021

Pedro C. Neto, Fadi Boutros, Joao Ribeiro Pinto, Mohsen Saffari, Naser Damer, Ana F. Sequeira and Jaime S. Cardoso

CAD Systems for Colorectal Cancer from WSI: we are not there yet.

Scientific Reports, 2021

Sara P. Oliveira*, <u>Pedro C. Neto</u>*, João Fraga*, Diana Montezuma, Ana Monteiro, João Monteiro, Liliana Ribeiro, Sofia Gonçalves, Isabel M. Pinto and Jaime S. Cardoso

MFR 2021: Masked Face Recognition Competition

2021 International Joint Conference on Biometrics (IJCB 2021)

Fadi Boutros, Naser Damer, Jan Niklas Kolf, Kiran Raja, Florian Kirchbuchner, Raghavendra Ramachandra, (...), Pedro C. Neto, Ana F. Sequeira, Joao Ribeiro Pinto, Mohsen Saffari and Jaime S. Cardoso

INTERNSHIP SUPERVISION

Co-supervisor of Breno Pimentel - Summer internship - 2021 - XAI4Biometrics - Explainable Artificial Intelligence for Biometrics.

Co-supervisor of Marcelo Carvalho - Master's internship - 2021

- Methods for face presentation attack detection.

SCIENTIFIC

ICCV 2021 CDPath Workshop Publicity Chair

CONFERENCES - Workshop on computational challenges in digital pathology.

AND

WORKSHOPS

WACV 2022 xai4Biometrics Workshop Sponsorship Chair

- Workshop on explainability and interpretability methods for biometrics.

- **REVIEWER AT:** 2022 IEEE Winter Conference on Applications of Computer Vision (WACV)
 - WACV 2022 Workshop on Manipulation, Adversarial, and Presentation Attacks in Biometrics