CURRICULUM VITAE

**Francisco Silva**
(00351) 936073362
francisco.c.silva@inesctec.pt

## Research experience

**03/2021 - present**
Assistant Researcher
Institute for Systems and Computer Engineering, Technology and Science, Portugal
Centre of Telecommunications and Multimedia (CTM)

**07/2020 - 03/2021**
External Research Collaborator
Institute for Systems and Computer Engineering, Technology and Science, Portugal
Centre of Telecommunications and Multimedia (CTM)

## Academic qualifications

**10/2021 - present**
Doctoral Program in Computer Science
Faculty of Sciences of the University of Porto

**09/2015 - 07/2020**
Master's Degree in Electrical and Computers Engineering, specialization in Robotics
Faculty of Engineering of the University of Porto

## Scientific publications (list of 10)

1. **Silva, F.**, Pereira, T., Neves, I., Morgado, J., Freitas, C., Malafaia, M., et al. (2022). Towards Machine Learning-Aided Lung Cancer Clinical Routines: Approaches and Open Challenges. *Journal of Personalized Medicine*, 12(3), 480.
2. Malafaia, M., **Silva, F.**, Neves, I., Pereira, T., & Oliveira, H. P. (2022). Robustness Analysis of Deep Learning-Based Lung Cancer Classification Using Explainable Methods. IEEE Access, 10, 112731-112741.
3. Frade, J., Pereira, T., Morgado, J., **Silva, F.**, Freitas, C., Mendes, J., et al. (2022). Multiple instance learning for lung pathophysiological findings detection using CT scans. *Medical & Biological Engineering & Computing*, 60(6), 1569-1584.
4. Sousa, J., Pereira, T., Neves, I., **Silva, F.**, & Oliveira, H. P. (2022). The Influence of a Coherent Annotation and Synthetic Addition of Lung Nodules for Lung Segmentation in CT Scans. *Sensors*, 22(9), 3443.
5. **Silva, F.**, Pereira, T., Morgado, J., Frade, J., Mendes, J., Freitas, C., et al. (2021). EGFR assessment in lung cancer CT images: Analysis of local and holistic regions of interest using deep unsupervised transfer learning. *IEEE Access*, 9, 58667-58676.
6. Morgado, J., Pereira, T., **Silva, F.**, Freitas, C., Negrão, E., de Lima, B. F., et al. (2021). Machine learning and feature selection methods for egfr mutation status prediction in lung cancer. *Applied Sciences*, 11(7), 3273.
7. Pereira, T., Morgado, J., **Silva, F.**, Pelter, M. M., Dias, V. R., Barros, R., et al. (2021). Sharing biomedical data: Strengthening ai development in healthcare. *Healthcare*, 9(7), 827.
8. Pereira, T., Freitas, C., Costa, J. L., Morgado, J., **Silva, F.**, Negrão, E., et al. (2020). Comprehensive perspective for lung cancer characterisation based on ai solutions using ct images. *Journal of Clinical Medicine*, 10(1), 118.

9. **Silva, F.**, Pereira, T., Frade, J., Mendes, J., Freitas, C., Hespanhol, V., et al. (2020). Pre-training autoencoder for lung nodule malignancy assessment using CT images. *Applied Sciences*, 10(21), 7837.
10. **Silva, F.**, Pereira, T., Morgado, J., Cunha, A., & Oliveira, H. P. (2021, November). The Impact of Interstitial Diseases Patterns on Lung CT Segmentation. In *2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)* (pp. 2856-2859). IEEE.

**Other scientific activities**

- Supervision of 2 MSc students (ongoing)
- Supervision of 4 MSc students (2022)
- Supervision of 5 internship students (CTM Summer Internships 2021)
- Reviewer for IEEE Access, Scientific Reports and Machine Learning
- Participation in the organization of VISUM (2022)