Pedro Morgado

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Curriculum Vitae

Last Updated: December 16, 2024

Appointments

Fall'22 - Now — Assistant Professor @ University of Wisconsin-Madison
Dept. of Electrical and Computer Engineering
Affiliate in Dept. of Computer Sciences

2021–2022 — Postdoctoral Fellow @ Carnegie Mellon University, Robotics Institute
Mentor: Abhinav Gupta.

2015–2021 — Research Assistant @ University of California San Diego (UCSD)
Mentor: Nuno Vasconcelos

Summer 2019 — Research Intern @ Facebook AI Research, New York
Mentor: Ishan Misra

Summer 2017 — Research Intern @ Adobe Research, Seattle
Mentor: Oliver Wang

2012–2014 — Research Assistant @ Institute for Systems and Robotics, Lisbon
Mentors: Margarida Silveira & Jorge S Marques

Education

2015–2021 — PhD, Electrical and Computer Eng., University of California San Diego.
Advisor: Prof. Nuno Vasconcelos.
Thesis: *"Learning to see and hear without human supervision."* *(link)*

2011–2012 — MSc, Electrical and Computer Eng., Instituto Superior Técnico, Lisbon, Portugal.
Advisors: Prof. Margarida Silveira & Prof. Jorge S. Marques
Thesis: *"Automated Diagnosis of Alzheimer's Disease using PET Images."* *(link)*

2008–2011 — BSc, Electrical and Computer Eng., Instituto Superior Técnico, Lisbon, Portugal

Honors and awards

2021 — **Best paper award candidate**, IEEE Conf. on Computer Vision and Pattern Recognition (CVPR'21). Awarded to 32 out of 5900 submissions (top 0.5%).

2017-Now — **Reviewer recognition**. Outstanding reviewer at NeurIPS'21, CVPR'21, ICCV'17. Top 10% reviewer at NeurIPS'20. Top reviewer at NeurIPS'19.

2015 — **FCT Graduate Fellowship (SFRH/BD/109135/2015)**. Four year fellowship for full-time doctoral studies awarded by the Portuguese Ministry of Sciences, Technology and Education.

2014 — **UCSD Graduate Fellowship**, Electrical and Computer Eng. departmental fellowship for the academic year of 2014-2015.

Teaching

Spring 2025	CS/ECE 539: Introduction of Artificial Neural Networks
Fall 2024	CS/ECE 204: Data Science & Engineering
Spring 2024	CS/ECE 766: Computer Vision
Fall 2023	CS/ECE 539: Introduction of Artificial Neural Networks
Spring 2023	CS/ECE/ME 532: Matrix Methods in Machine Learning
Fall 2022	CS/ECE/ME 532: Matrix Methods in Machine Learning

Service and leadership

Area Chair	Neural Information Processing Systems (NeurIPS), 2023–2024.
	Computer Vision and Pattern Recognition (CVPR), 2022–2025.
Reviewing	Computer Vision and Pattern Recognition (CVPR)
	International Conference on Computer Vision (ICCV)
	European Conference on Computer Vision (ECCV)
	Neural Information Processing Systems (NeurIPS)
	International Conference on Learning Representations (ICLR)
	International Conference on Machine Learning (ICML)
	International Conference on Acoustics, Speech and Signal Processing (ICASSP)
	Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
	Journal of Machine Learning Research (JMLR)
	Transactions on Machine Learning Research (TMLR)
	Transactions on Big Data
Mentoring	Summer Research Internship Program. 2018 & 2019. Mentoring UCSD undergraduate and graduate students in computer vision research.
	ENLACE bi-national summer research program. 2018. Mentoring students in a high-school outreach program promoting diversity in research, especially in Hispanic communities.

Invited talks

Sep 2024	Towards Audio-Guided Visual Animation @2024 Midwest Computer Vision Workshop.
Oct 2023	Audio-Visual Machine Perception @UW Madison - Leonard Urh Memorial Symposium.
July 2023	Unifying Audio-Visual Machine Perception - Tasks & Architectures @UW Madison - ML4MI Seminar.
Feb 2023	Challenges of Self-Supervised Learning beyond ImageNet @University of Bristol - MaVi Seminar @UC San Diego - Scripps Institute of Oceanography Machine Learners Group.

Oct 2022 Multi-modal representation learning from and for realistic audio-visual data.
@AV4D Workshop, ECCV'22, Tel Aviv, Israel.

Sept 2022 Learning to see in the wild. Should SSL be truly unsupervised?
@SILO Seminar, UW Madison.
@Computer Vision Round Table, UW Madison.

Jun 2022 Learning to see what and where it sounds.
@Sight and Sound Workshop, CVPR'22, New Orleans, LO.

Feb-Mar 2020 Learning to see and hear without human supervision.
@TTI-Chicago @Virginia Tech @University of Pittsburgh @University of California, Merced @University of Wisconsin, Madison @University of Utah @University of Illinois, Chicago.

Jan 2020 Learning to see and hear from audio-visual co-occurrences.
@Pixel Cafe Seminar, UCSD.

Jun 2018 Self-supervised spatial audio generation
@Center for Visual Computing Retreat, UCSD

Peer-reviewed publications

* Denotes equal contribution

2024 NeurIPS [28] Accelerating Self-supervised Learning Pretraining. J Lin, CE Wu, Y Wei, **P Morgado**. Neural Information Processing Systems (NeurIPS), 2024. *paper*

2024 WACV [27] Patch Ranking: Efficient CLIP by Learning to Rank Local Patches. CE Wu, JL, YH Hu, **P Morgado**. Winter Conference on Applications of Computer Vision (WACV), 2024. *paper*

2024 ECCV [26] Towards Latent Masked Image Modeling for Self-Supervised Visual Representation Learning. Y Wei, A Gupta, **P Morgado**. European Conference on Computer Vision (ECCV), 2024. *paper*

[25] Audio-visual Generalized Zero-shot Learning the Easy Way. S Mo, **P Morgado**. European Conference on Computer Vision (ECCV), 2024. *paper*

[24] Audio-Synchronized Visual Animation. L Zhang, S Mo, Y Zhang, **P Morgado**. European Conference on Computer Vision (ECCV), 2024. *paper*

2024 CVPR [23] Unveiling the Power of Audio-Visual Early Fusion Transformers with Dense Interactions through Masked Modeling. S Mo, **P Morgado**. Conference on Computer Vision and Pattern Recognition (CVPR), 2024. *paper*

2023 ICCV [22] Why Is Prompt Tuning for Vision-Language Models Robust to Noisy Labels? C Wu, Y Tian, H Yu, H Wang, **P Morgado**, Yu Hen Hu, L Yang. International Conference on Computer Vision (ICCV), 2023. *paper*

2023 ICML [21] A Unified Audio-Visual Learning Framework for Localization, Separation and Recognition. S Mo, **P Morgado**. International Conference on Machine Learning (ICML), 2023. *paper*

2022 NeurIPS [20] Learning State-Aware Visual Representations from Audible Interactions. H Mittal, **P Morgado**, U Jain, A Gupta. Neural Information Processing Systems (NeurIPS), 2022. *paper*

[19] A Closer Look at Weakly-Supervised Audio-Visual Source Localization. S Mo, **P Morgado**. Neural Information Processing Systems (NeurIPS), 2022. *paper*

2022 ECCV [18] The Challenges of Continuous Self-Supervised Learning. S Purushwalkam*, **P Morgado***, A Gupta. European Conference on Computer Vision (ECCV), 2022. ***(Oral presentation)*** *paper*

[17] Localizing Visual Sounds the Easy Way. S Mo, **P Morgado**. European Conference on Computer Vision (ECCV), 2022. *paper*

2022 Journal [16] Benchmarking and Automating the Image Recognition Capability of an In situ Plankton Imaging System. J Jaffe, K Le, Z Yuan, A Syed, D Ratelle, E Orenstein, M Carter, S Strang, K Kenitz, **P Morgado**, P Franks, N Vasconcelos. Frontiers in Marine Science, 2022. *paper*

2021 CVPR [15] Robust Audio-Visual Instance Discrimination. **P Morgado**, I Misra, N Vasconcelos. Conference on Computer Vision and Pattern Recognition (CVPR), 2021. ***(Oral presentation)*** *paper*

[14] Audio-Visual Instance Discrimination with Cross-Modal Agreement. **P Morgado**, N Vasconcelos, I Misra. Conference on Computer Vision and Pattern Recognition (CVPR), 2021. ***Best paper award candidate***. *paper*

2020 NeurIPS [13] Learning Representations from Audio-Visual Spatial Alignment. **P Morgado***, Y Li*, N Vasconcelos. Neural Information Processing Systems (NeurIPS), 2020. *paper*

2020 IJCV [12] Deep Hashing with Hash-Consistent Large Margin Proxy Embeddings. **P Morgado**, Y Li, JC Pereira, M Saberian, N Vasconcelos. International Journal on Computer Vision (IJCV), 2020. *paper*

2020 ECCV [11] Solving Long-tailed Recognition with Deep Realistic Taxonomic Classifier. TY Wu, **P Morgado**, P Wang, CH Ho, N Vasconcelos. European Conference on Computer Vision (ECCV), 2020. *paper*

2019 CVPR [10] NetTailor: Tuning the architecture, not just the weights. **P Morgado** and N Vasconcelos. Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, 2019. *paper*

[9] PIEs: Pose Invariant Embeddings. Chih-Hui Ho, **P Morgado** and N Vasconcelos. Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, 2019. *paper*

2018 NeurIPS [8] Self-Supervised Generation of Spatial Audio for 360 Video. **P Morgado**, N Vasconcelos, T Langlois, O Wang. Neural Information Processing Systems (NeurIPS), Montreal, 2018. *paper*

2017 CVPR [7] Semantically Consistent Regularization for Zero-Shot Recognition. **P Morgado**, and N Vasconcelos. Conference on Computer Vision and Pattern Recognition (CVPR), 2017. *paper*

2015 Neurocomp. [6] Minimal neighborhood redundancy maximal relevance: Application to the diagnosis of Alzheimer's disease. **P Morgado**, and M Silveira. Neurocomputing, 2015. *paper*

2015 CBM [5] Predicting conversion from MCI to AD with FDG-PET brain images at different prodromal stages. C Cabral, **P Morgado**, DC Costa, and M Silveira. Computers in Biology and Medicine, 2015. *paper*

2013 ISBI [4] Efficient selection of non-redundant features for the diagnosis of Alzheimer's disease. **P Morgado**, M Silveira, and JS Marques. International Symposium on Biomedical Imaging (ISBI) 2013. ***(Oral presentation)*** *paper*

[3] Extending Local Binary Patterns to 3D for the diagnosis of Alzheimer's disease. **P Morgado**, M Silveira, and JS Marques. International Symposium on Biomedical Imaging (ISBI) 2013. *paper*

2013 MLSP [2] Texton-based diagnosis of Alzheimer's disease. **P Morgado**, M Silveira, and DC Costa. International Workshop on Machine Learning for Signal Processing (MLSP) 2013. *paper*

2013 CMBB [1] Diagnosis of Alzheimer's disease using 3D Local Binary Patterns. **P Morgado**, M Silveira, and JS Marques. Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization, 2013. *paper*