Ignacio **Peis**

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Oct. 2019 - Present

Sep. 2016 - Jul. 2018

Positions Universidad Carlos III de Madrid

Predoctoral Researcher and Teaching Assistant

Signal Processing Group

Supervisors: Prof. Dr. Antonio Artés Rodríguez

Dr. Pablo Martínez Olmos

University of Cambridge Feb. 2021 - Feb. 2022

Visiting researcher Machine Learning Group

Supervisor: Dr. José Miguel Hernández-Lobato

Universidad Carlos III de Madrid Feb. 2017 - Sept. 2019

Research associate Signal Processing Group

Supervisor: Prof. Dr. Antonio Artés Rodríguez

Universidad Carlos III de Madrid EDUCATION Oct. 2018 - Present

PhD in Probabilistic Machine Learning

Advisors: Prof. Dr. Antonio Artés Rodríguez Dr. Pablo Martínez Olmos

Universidad Carlos III de Madrid

M.Sc. in Multimedia and Communications M.Sc. in Telecommunications Engineering Two dissertations with highest mark

One course with honors

Universidad de Granada Sep. 2012 - Jul. 2016

B.Sc. in Telecommunications Engineering

Five courses with honors

TEACHING Advanced Machine Learning 2023 BBVA, Fundación UC3M

> Intermediate Machine Learning and Feature Engineering 2022 - Present

BBVA, Fundación UC3M

	Machine Learning Fundamentals BBVA, Fundación UC3M	2020-Present
	Machine Learning II Bachelor in Data Science and Engineering Universidad Carlos III de Madrid	2020, 2022
	Neural Networks Bachelor in Data Science and Engineering Universidad Carlos III de Madrid	2022
	Communications Theory Bachelor in Telecommunications Engineering Bachelor in Sound and Image Engineering Universidad Carlos III de Madrid	2022
REVIEWING	Artificial Intelligence and Statistics (AISTATS) Selected as Top-10% Reviewer	2022
	Journal of Machine Learning Research (JMLR)	2022 - Present
	Journal of Biomedical and Health Informatics (JBHI)	2018 - Present
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- PUBLICATIONS B. Koyuncu, P. Sánchez, I. Peis, P. M. Olmos and I. Valera. Variational Mix-2023 ture of HyperGenerators for Learning Distributions Over Functions. Preprint arXiv:2302.06223, 2023. [under review] [pdf]
 - 2022 I. Peis, P. M. Olmos and A. Artés-Rodríguez. Unsupervised Learning of Global Factors in Deep Generative Models. In Pattern Recognition, vol. 134, p. 109130, 2022. [pdf]
 - I. Peis, C. Ma and J. M. Hernández-Lobato. Missing Data Imputation and Acquisition with Deep Hierarchical Models and Hamiltonian Monte Carlo . In Advances in Neural Information Processing Systems 35 (NeurIPS), 2022. [pdf] [slides] [video] [poster]
 - 2020 I. Peis, J. D. López-Moríñigo, M. M. Pérez-Rodríguez, M. L. Barrigón, M. Ruiz-Gómez, A. Artés-Rodríguez and E. Baca-García. Actigraphic recording of motor activity in depressed inpatients: a novel computational approach to prediction of clinical course and hospital discharge. In Scientific reports, 10. Nature, 2020. [pdf]
 - 2019 I. Peis, P. M. Olmos, C. Vera-Varela, M. L. Barrigón, P. Courtet, E. Baca-García and A. Artés Rodríguez. Deep Sequential Models for Suicidal Ideation from Multiple Source Data. In *Journal of Biomedical and Health Informatics*, vol. 23, no. 6. IEEE, 2019. [pdf] [html]

2017	D. Castillo-Barnes, I. Peis, F. J. Martínez-Murcia, F. Segovia, I. A. Illán, J.
	M. Górriz, J. Ramírez, D. Salas-Gonzalez. A Heavy Tailed Expectation
	Maximization Hidden Markov Random Field Model with Applications
	to Segmentation of MRI. In Frontiers in Neuroinformatics, 11, 66, 2017.
	[pdf]

2016	I. Peis, I. A. Illán, F. J.Martínez-Murcia, F. Segovia, J. M. Górriz, J. Ramírez,
	E. W. Lang & D. Salas-Gonzalez. MRI brain segmentation using hidden
	Markov random fields with alpha-stable distributions. In IEEE Nu-
	clear Science Symposium, Medical Imaging Conference and Room-Temperature
	Semiconductor Detector Workshop (NSS/MIC/RTSD) (pp. 1-3). IEEE, 2016.
	[html]

TALKS	Missing Data Imputation and Acquisition with Deep Hierarchical Models and Hamiltonian Monte Carlo Oral (video) and poster presentation NeurIPS22, New Orleans, USA [slides] [video] [poster]	Dec. 2022
	Missing Data Imputation and Acquisition with Deep Hi- erarchical Models and Hamiltonian Monte Carlo Signal Processing Group Universidad Carlos III de Madrid	Jun. 2022
	Deep Sequential Models for Suicidal Ideation from Multiple Source Data Signal Processing Group Universidad Carlos III de Madrid	Jul. 2018
Courses	AI and Machine Learning in Healthcare Summer School Cambridge Centre for AI in Medicine University of Cambridge, UK	Sep. 2022
	Gaussian Process and Uncertainty Quantification Summer School, 2020. University of Sheffield, UK	Sep. 2020
	Machine Learning Summer School (MLSS) Skoltech Institute of Science and Technology, Moscow, Russia	Sep. 2019
	Machine Learning Frontiers in Precision Medicine (MLFPM) 1st Summer School ETH Zurich, Switzerland	Sep. 2019

Machine Learning Summer School (MLSS)

Sep. 2018

Universidad Autónoma de Madrid, Spain

Gaussian Process and Uncertainty Quantification Summer School, 2017.

Sep. 2017

University of Sheffield, UK

DISSERTATIONS

- I. Peis. Deep sequential models with attention for psychiatric patients clinical assessment. M.Sc. Thesis Dissertation (Multimedia and Communications), 2018.
- I. Peis. Activity monitoring in depressed patients in the hospital setting: a pilot study testing new methods of actigraphy data analysis for predicting clinical progress and date of hospital discharge. M.Sc. Thesis Dissertation (Telecommunications Engineering), 2018.
- I. Peis. Hidden Markov Random Fields with alpha-stable distributions for brain Magnetic Resonance Images. B.Sc. Thesis Dissertation (Telecommunications Engineering), 2016.

Grants

FPU granted to fund doctoral internships Spanish Ministry of Education 2021

FPU granted to fund doctoral studies Spanish Ministry of Education

2019

Languages Spanish Mothertongue English Advanced

Programming Skills

Main Languages

Python, Matlab, C, Java

Frameworks Others PyTorch, TensorFlow, sklearn, Stan R, C++, SQL, HTML, Javascript, CSS3

Last updated: April 12, 2023