Daniel **Barrejón**

Universidad Carlos III de Madrid

Dpt. of Signal Theory and Communications

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2023

Positions University of Amsterdam Mar. 2022 - Jul. 2022

Visiting Researcher: Amsterdam Machine Learning Lab (AMLab)

Supervisor: Dr. Eric Nalisnick

Universidad Carlos III de Madrid Oct. 2018 - Sept. 2019

Research Intern (Graduate): Group of Multimedia Processing

Research field: Computer Vision.

Universidad Carlos III de Madrid Sept. 2017 - Feb. 2018

Research Intern (Undergraduate): Signal Theory and Communications.

Research field: Bayesian Statistics for Signal Processing.

Education Universidad Carlos III de Madrid Sept. 2019 - Present

PhD student in Machine Learning.

Advisors: Dr. Pablo M. Olmos and Dr. Antonio Artés.

Universidad Carlos III de Madrid Sep. 2018 - Sept. 2019

M.Sc. in Multimedia and Communications.

Technische Universität München Oct. 2016 - Aug. 2017

Program: M.Sc. in Elektrotechnik und Informationstechnik.

Erasmus Scholarship.

Universidad Carlos III de Madrid Sept. 2014 - Sept. 2018

B.Sc. in Telecommunications Technologies Engineering.

Teaching
Universidad Carlos III de Madrid

T.A in Neural Networks (Bsc. in Data Science and Eng.)

T.A in Machine Learning in Health (Bsc. in Data Science and Eng.)

T.A in Systems and Signals (Bsc. in Biomedical Eng.)

2021, 2022

T.A in Linear Systems (Bsc. in Telecommunications Eng.)

2021

BBVA and Fundación Universidad Carlos III de Madrid

T.A in Advanced Machine Learning 2023
T.A in Machine Learning Fundamentals 2021, 2022, 2023
T.A in Natural Language Processing 2021, 2022, 2023

Projects Deep-DARWiN Sept. 2019 - Present

Domain Alignment and Data Wrangling with Deep Generative Models.

Real-time highway object detection Oct. 2018 - Sept. 2019

Computer vision project using Deep Learning.

Detection of behavioural changes in psychiatric patients. Daniel Barrejón. Sep. 2017 - Oct. 2018

B.Sc. Thesis Dissertion

Summer Gaussian Process Summer School (GPSS), University of Sheffield. 2020, 2021 schools Nordic Probabilistic AI School (ProbAi), Norwegian Open AI Lab 2021

Eastern European Machine Learning Summer School (EEML) 2021 Machine Learning Frontiers in Precision Medicine (MLFPM). 2019, 2020

Update: March 27, 2023

Publications

*Co-first authors. Order determined by coin flip.

Journals

D.Barrejón, Pablo M. Olmos, A.Artés-Rodríguez

Medical data wrangling with sequential variational autoencoders

In IEEE Journal of Biomedical and Health Informatics, 2021.

Peer-review Conferences R. Verma*, <u>D.Barrejón</u>*, E. Nalisnick

Learning to Defer to Multiple Experts: Consistent Surrogate Losses, Con-

fidence Calibration, and Conformal Ensembles Artificial Intelligent and Statistics (AISTATS), 2023.

R. Verma, D.Barrejón, E. Nalisnick

On the Calibration of Learning to Defer to Multiple Experts

In ICML 2022 Workshop on Human-Machine Collaboration and Teaming, 2022.

<u>D.Barrejón,</u> Pablo M. Olmos, A.Artés-Rodríguez, **Temporal-hierarchical VAE for Heterogenous and Missing Data Handling**, Bayesian Deep Learning workshop

@NeurIPS 2020, Poster presentation

Reviewing Neural Information Processing Systems (NeurIPS)

Advances in Approximate Bayesian Inference (AABI) @ ICML

International Conference on Machine Learning (ICML)

Artificial Intelligence and Statistics (AISTATS)

Multimodal Representation Learning (MLR) Workshop @ ICLR

I can't believe it's not better (ICBINB) Workshop @ NeurIPS

2023

Grants & Prizes

Top 10% reviewer in Artificial Intelligence and Statistics (AISTATS) FPU Grant to fund doctoral Studies, Spanish Ministry of Education

2020

2023

2023

Courses Generative Adversarial Networks Specialization [deeplearning.ai]

Deep Learning Specialization [deeplearning.ai]

Course Certificate
Course Certificate

2021, 2022

2018

2017

Volunteering Volunteer and attendant in Artificial Intelligence and Statistics (AISTATS)

Tutor for Linear Algebra in Universidad Carlos III de Madrid Let's be friends with books: Erasmus + project in Iğdır, Turkey (19 Apr.- 26 Apr.)

Languages

Spanish: Mother tongue.
English: Advanced User C1.

French: Upper Intermediate User B2. German: Intermediate User B1.

Computer Skills

Python, Matlab, Java, C. Latex.

DL Frameworks: Pytorch, Tensorflow, Keras.

 ${\bf Others}\hbox{: }{\bf OpenCV}\hbox{, Git, Inkscape, Logic Pro X, Ableton Live.}$

References

Dr. Pablo. M. Olmos, Universidad Carlos III de Madrid.

Dr. Antonio Artés-Rodríguez, Universidad Carlos III de Madrid.

Dr. Eric Nalisnick, University of Amsterdam.

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