Daniel Barrejón

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Date Birth: 13th July 1996 daniel.barrejon@uc3m.es

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Positions

University of Amsterdam

Mar. 2022 - Jul. 2022

Visiting Researcher: Amsterdam Machine Learning Lab (AMLab)

Supervisor: Dr. Eric Nalisnick

Dec. 2020 - Present

Fundación UC3M Course Instructor

Fundamentals, Advanced Machine Learning and Natural Language Processing courses

for BBVA employees.

Oct. 2018 - Sept. 2019

Universidad Carlos III de Madrid Research Intern (Graduate): Group of Multimedia Processing

Research field: Computer Vision.

Sept. 2017 - Feb. 2018

Universidad Carlos III de Madrid

Research Intern (Undergraduate): Signal Theory and Communications.

Research field: Bayesian Statistics for Signal Processing.

Education

Universidad Carlos III de Madrid

Sept. 2019 - Oct. 2023

PhD student in Machine Learning.

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

Universidad Carlos III de Madrid

M.Sc. in Multimedia and Communications.

Sep. 2018 - Sept. 2019 Oct. 2016 - Aug. 2017

Technische Universität München

Universidad Carlos III de Madrid

Program: M.Sc. in Elektrotechnik und Informationstechnik.

Erasmus Scholarship.

Sept. 2014 - Sept. 2018

2023

2022

2021

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.)

BBVA and Fundación Universidad Carlos III de Madrid

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

Projects

Deep-DARWiN Sept. 2019 - Sept. 2021

Domain Alignment and Data Wrangling with Deep Generative Models.

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

Computer vision project using Deep Learning.

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

B.Sc. Thesis Dissertion

Update: September 8, 2023

Summer schools

Gaussian Process Summer School (GPSS), University of Sheffield. Nordic Probabilistic AI School (ProbAi), Norwegian Open AI Lab Eastern European Machine Learning Summer School (EEML) Machine Learning Frontiers in Precision Medicine (MLFPM).

2020, 2021 2021 2021 2019, 2020

2023

2022

2020

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.

 $\underline{\text{D.Barrej\'on}}, \text{ Pablo M. Olmos, A.Art\'es-Rodr\'iguez}, \textbf{Temporal-hierarchical VAE for Heterogenous and Missing Data Handling}, \text{ Bayesian Deep Learning workshop}$

@NeurIPS 2020, Poster presentation

Reviewing

International Conference on Learning Representations (ICLR)	2024
XAI in Action: Past, Present and Future Workshop @NeurIPS	2023
Deep Generative Models for Health Workshop @NeurIPS	2023
Neural Information Processing Systems (NeurIPS)	2023
International Conference on Machine Learning (ICML)	2023
Artificial Intelligence and Statistics (AISTATS)	2023
Advances in Approximate Bayesian Inference (AABI) @ ICML	2023
Structured Probabilistic Inference & Generative Modeling (SPIGM) @ ICML	2023
Multimodal Representation Learning (MLR) Workshop @ ICLR	2023
I can't believe it's not better (ICBINB) Workshop @ NeurIPS	2022

Grants & Prizes

Top 10% reviewer in Artificial Intelligence and Statistics (AISTATS)

Research Visit Grant, Universidad Carlos III de Madrid

FPU Grant to fund doctoral Studies, Spanish Ministry of Education

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.)

2021, 2022

2018

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.

Others: OpenCV, 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.

Update: September 8, 2023