Gonçalo Mordido

Email *Google Scholar* *Website* *Dublin, Ireland* *Portuguese*

Work Experience

2024 – Now | **Huawei Ireland Research Center** (Ireland)
Senior AI Researcher
- Large language models (LLMs) research and applications.

2022 – 2024 | **Mila - Quebec AI Institute** (Canada)
Postdoctoral Fellow
- Fairness, robustness, and efficiency in LLMs.
- Mentored 11 Ph.D., 4 M.Sc., and 2 interns.
- Awarded an *excellence award* for foreign researchers.

Fall 2020 & Fall 2018 | **NVIDIA** (Germany)
Research Intern
- Compression of deep neural networks.
- Awarded a *recognition award* for "exceptional and outstanding contributions".

Education

2017 – 2021 | **Hasso Plattner Institute** (Germany)
Ph.D. in Artificial Intelligence
- *Grade*: *Magna cum laude* ("with great distinction")
- Thesis: Diversification, compression, and evaluation methods for generative adversarial nets.

2012 – 2017 | **Universidade Nova de Lisboa** (Portugal)
B.Sc. and M.Sc. in Computer Science and Engineering
- *Grades*: *A*
- Thesis: Automated organization and quality analysis of user-generated audio content.

Honors & Awards

2024 | **Vector fellowship** (declined). *Vector Institute*

2023 | **Excellence award**. *Fonds de Recherche du Québec*

2021 | **Honors Ph.D. graduation**. *Hasso Plattner Institute*

2020 | **Recognition award**. *NVIDIA*

2015 | **Best final year B.Sc. project**. *Universidade Nova de Lisboa*

2015 | **First place at hackathon**. *Universidade Nova de Lisboa*

Selected Activities

2022 – Now | **Organizer**. *Hardware-Aware Efficient Training workshop* (ICML'22), *Conference on Lifelong Learning Agents* (CoLLAs'22), *CRL Symposium* at Mila (2023,2022).

2021 – Now | **Reviewer**. *EMNLP ('23,'21,'20), ACL ('23,'20), EACL'21*.

2017 – Now | **Speaker**. *Vector (2024), Mila (2023,2022), MIT (2021), UBC (2021), NVIDIA GTC (2021), SAP TechEd (2017)*.

Patents

2022 | **Incorporating a ternary matrix into a neural network**.
A. Keller, G. Mordido, M. Keirsbilck.

2019 | **Representing a neural net utilizing paths within the network to improve a performance of the neural net**.
A. Keller, G. Mordido, N. Gamboa, M. Keirsbilck.

Selected Publications

ICML'24 | **Lookbehind-SAM: k steps back, 1 step forward.**
G. Mordido, P. Malviya, A. Baratin, S. Chandar.

ACL'24 | **Why don't prompt-based fairness metrics correlate?**
A. Zayed, G. Mordido, I. Baldini, S. Chandar.

AAAI'24 | **Fairness-aware structured pruning in Transformers.**
A. Zayed, G. Mordido, S. Shaban., I. Baldini, S. Chandar.

TMLR'24 | **Promoting exploration in memory-augmented Adam using critical momenta.**
P. Malviya, G. Mordido, . . . , R. Pascanu, S. Chandar.

COLM'24 | **Should we attend more or less? Modulating attention for fairness.**
A. Zayed, G. Mordido, S. Shabanian, S. Chandar.

IEEE TSP'24 | **Fast and accurate output error estimation for memristor-based deep neural networks.**
J. Kern, S. Henwood, G. Mordido, . . . , F. Leduc-Primeau.

TMLR'23 | **Training DNNs resilient to adversarial and random bit-flips by learning quantization ranges.**
K. Chitsaz, G. Mordido, J. David, F. Leduc-Primeau.

AAAI'23 | **Deep learning on a healthy data diet: Finding important examples for fairness.**
A. Zayed, P. Parthasarathi, G. Mordido, . . . , S. Chandar.

CoLLAs'22 | **Improving meta-learning generalization with activation-based early-stopping.**
S. Guiroy, C. Pal, G. Mordido, S. Chandar.

Interspeech'21 | **Compressing 1D time-channel separable convolutions using sparse random ternary matrices.**
G. Mordido, M. Keirsbilck, A. Keller.

WACV'21 | **Assessing image and text generation with topological analysis and fuzzy logic.**
G. Mordido*, J. Niedermeier*, C. Meinel.

COLING'20 | **Mark-evaluate: Assessing language generation using population estimation methods**.
G. Mordido, C. Meinel.

WACV'20 | **microbatchGAN: Stimulating diversity with multi-adversarial discrimination**.
G. Mordido, H. Yang, and C. Meinel.

KDD'18 DL Day | **Dropout-GAN: Learning from a dynamic ensemble of discriminators**.
G. Mordido, H. Yang, and C. Meinel.

Teaching

Winter 2022 | **Neural networks**. *Guest lecturer, Polytechnique Montreal*

Fall 2022 | **Machine learning**. *Lead TA, Polytechnique Montreal*

2017 – 2020 | **Deep learning**. *TA, Hasso Plattner Institute*

Selected Skills

Python (PyTorch, TensorFlow, Hugging Face, NumPy), C++