# Gonçalo Mordido

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## Work Experience

2022 – Now | **Mila - Quebec AI Institute** (Canada)
*Postdoctoral Fellow*
- Fair, robust, and efficient Transformer models.
- Mentored a total of 8 Ph.D. and 6 M.Sc. students, and supervised 2 interns.
- Awarded FRQ's *excellence scholarship*.

2017 – 2021 | **Hasso Plattner Institute** (Germany)
*Research Associate & Ph.D. Candidate*
- Diversification, compression, and evaluation of generative models.
- Mentored 7 M.Sc. students and 1 intern.
- Graduated with *great distinction*.

Fall 2020<br>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*
- Thesis: Diversification, compression, and evaluation methods for generative adversarial nets.

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

## Honors & Awards

2023 | **Excellence scholarship**. *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*

## Selected Activities

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

2017 – Now | **Reviewer**. *EMNLP'23, ACL'23, ICML'22 WS, EMNLP'21, EACL'21, CVPR'21, Knowledge-Based Systems, ACL'20, EMNLP'20, WACV'20, ICIS'19, Neural Comp. & App., IEEE Access, Big Data'17*.

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

## Selected Skills

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

## 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, A. Baratin, R. Harikandeh, J. Huang, S. Lacoste-Julien, R. Pascanu, S. Chandar.

IEEE TSP'24 | **Fast and accurate output error estimation for memristor-based deep neural networks.**
J. Kern, S. Henwood, G. Mordido, E. Dupraz, A. Bey, Y. Savaria, 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, H. Palangi, S. Shabanian, 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.

## 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.