

# Gonçalo Mordido

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🌐 <https://goncalomordido.github.io>

🐙 [GitHub](#)

🎓 [Scholar](#)

## Work Experience

2022 – Now	<b>Mila - Quebec AI Institute</b> (Canada) <i>Postdoctoral Fellow</i> <ul style="list-style-type: none"><li>Efficient methods for deep learning [3, 4, 5, 6].</li><li>Mentored a total of 7 Ph.D. and 5 M.Sc. students, and supervised 2 interns.</li><li>Awarded the prestigious FRQ <i>postdoctoral excellence scholarship</i>.</li><li>Advisor: Prof. Sarath Chandar</li></ul>
2017 – 2021	<b>Hasso Plattner Institute</b> (Germany) <i>Research Associate &amp; Ph.D. Candidate</i> (4 years) <ul style="list-style-type: none"><li>Diversification, compression, and evaluation of generative models [8, 9, 10].</li><li>Mentored 7 M.Sc. students and 1 intern.</li><li>Graduated with <i>great distinction</i>.</li><li>Advisor: Prof. Christoph Meinel</li></ul>
Fall 2020	<b>NVIDIA</b> (Germany) <i>Research Intern</i> (4 months) <ul style="list-style-type: none"><li>Compression of deep neural networks via random matrices [1, 7].</li><li>Awarded a <i>recognition award</i> for "exceptional and outstanding contributions".</li><li>Host: Dr. Alexander Keller</li></ul>
Fall 2018	<b>NVIDIA</b> (Germany) <i>Research Intern</i> (6 months) <ul style="list-style-type: none"><li>Compression of deep neural networks via pruning and quantization [2, 11].</li><li>Host: Dr. Alexander Keller</li></ul>

## Education

2017 – 2021	<b>Hasso Plattner Institute</b> (Germany) <i>Ph.D. in Artificial Intelligence</i> <ul style="list-style-type: none"><li>Grade: <i>Magna cum laude</i></li></ul>
2012 – 2017	<b>NOVA University Lisbon</b> (Portugal) <i>B.Sc. and M.Sc. in Computer Science &amp; Engineering</i> <ul style="list-style-type: none"><li>Grades: <i>A</i></li></ul>

## Honors & Awards

2023	<b>Postdoc merit scholarship.</b> <i>Fonds de Recherche du Québec</i>
2021	<b>Honors Ph.D. graduation.</b> <i>Hasso Plattner Institute</i>
2020	<b>Recognition award.</b> <i>NVIDIA</i>
2015	<b>Best final year B.Sc. project.</b> <i>NOVA University Lisbon</i>
2015	<b>First place hackathon winner.</b> <i>NOVA University Lisbon</i>

## Patents

- [1] **Incorporating a ternary matrix into a neural network.** A. Keller, [G. Mordido](#), M. Keirsbilck. 2022.
- [2] **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. 2019.

## Selected Publications (check Google Scholar for full list)

- [3] **Fairness-aware structured pruning in Transformers.** *AAAI 2024*  
A. Zayed, [G. Mordido](#), S. Shabanian, I. Baldini, S. Chandar
- [4] **Training DNNs resilient to adversarial and random bit-flips by learning quantization ranges.** *TMLR 2023*  
K. Chitsaz, [G. Mordido](#), J. David, F. Leduc-Primeau.
- [5] **Deep learning on a healthy data diet: Finding important examples for fairness.** *AAAI 2023*  
A. Zayed, P. Parthasarathi, [G. Mordido](#), H. Palangi, S. Shabanian, S. Chandar.
- [6] **Improving meta-learning generalization with activation-based early-stopping.** *CoLLAs 2022*  
S. Guiroy, C. Pal, [G. Mordido](#), S. Chandar.
- [7] **Compressing 1D time-channel separable convolutions using sparse random ternary matrices.** *Interspeech 2021*  
[G. Mordido](#), M. Keirsbilck, A. Keller.
- [8] **Assessing image and text generation with topological analysis and fuzzy logic.** *WACV 2021*  
[G. Mordido\\*](#), J. Niedermeier\*, C. Meinel.
- [9] **Mark-Evaluate: Assessing language generation using population estimation methods.** *COLING 2020*  
[G. Mordido](#), C. Meinel.
- [10] **microbatchGAN: Stimulating diversity with multi-adversarial discrimination.** *WACV 2020*  
[G. Mordido](#), H. Yang, and C. Meinel.
- [11] **Instant quantization of neural networks using Monte Carlo methods.** *NeurIPS 2019 workshop*  
[G. Mordido](#), M. Keirsbilck, A. Keller.

## Selected Activities

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|------------|---|
| 2022 – Now | <b>Organizer.</b> <i>Workshop on Hardware-Aware Efficient Training (ICML'22)</i> , <i>Conference on Lifelong Learning Agents (CoLLAs'22)</i> , <i>Chandar Research Lab Symposium at Mila (CRL'22,23)</i> .  |
| 2017 – Now | <b>Reviewer.</b> <i>EMNLP'23</i> , <i>ACL'23</i> , <i>ICML'22 WS</i> , <i>EMNLP'21</i> , <i>EACL'21</i> , <i>CVPR'21</i> , <i>Knowledge-Based Systems</i> , <i>ACL'20</i> , <i>EMNLP'20</i> , <i>WACV'20</i> , <i>ICIS'19</i> , <i>Neural Comp. &amp; App.</i> , <i>IEEE Access'18</i> , <i>Big Data'17</i> . |
| 2017 – Now | <b>Invited speaker.</b> <i>Mila (2022, 2023)</i> , <i>MIT (2021)</i> , <i>UBC (2021)</i> , <i>GTC (2021)</i> , <i>SAP TechEd (2017)</i> .   |

## Teaching

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|-------------|---|
| Fall 2022   | <b>Machine Learning.</b> <i>Lead TA, Poly MTL</i>         |
| Winter 2022 | <b>Neural Networks.</b> <i>Guest Lecturer, Poly MTL</i>   |
| 2017 – 2020 | <b>Deep Learning.</b> <i>TA, Hasso Plattner Institute</i> |

## Selected Skills

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