Gonçalo Mordido

♠ https://goncalomordido.github.io

GitHub

Schola

Work Experience

2022 - Now | **Mila - Quel**

Mila - Quebec AI Institute (Canada)

Postdoctoral Fellow

- Efficient methods for deep learning [3, 4, 5].
- Mentored a total of 7 Ph.D. and 5 M.Sc. students, and supervised 2 interns.
- Awarded the prestigious FRQ postdoctoral excellence scholarship.
- · Advisor: Prof. Sarath Chandar

2017 - 2021

Hasso Plattner Institute (Germany)

Research Associate & Ph.D. Candidate (4 years)

- Diversification, compression, and evaluation methods for generative models [7, 8, 9].
- Mentored 7 M.Sc. students and 1 intern.
- Graduated with great distinction.
- Advisor: Prof. Christoph Meinel

Fall 2020

NVIDIA (Germany)

Research Intern (4 months)

- Compression of deep neural networks via random matrices [1, 6].
- Awarded a *recognition award* for "exceptional and outstanding contributions".
- · Host: Dr. Alexander Keller

Fall 2018

NVIDIA (Germany)

Research Intern (6 months)

- Compression of deep neural networks via pruning and quantization [2, 10, 11].
- Host: Dr. Alexander Keller

Education

2017 - 2021

Hasso Plattner Institute (Germany)

Ph.D. in Artificial Intelligence

• Grade: Magna cum laude

2012 - 2017

NOVA University Lisbon (Portugal)

B.Sc. and M.Sc. in Computer Science & Engineering

• Grades: A

Honors & Awards

2023 **Postdoc merit 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**. *NOVA University Lisbon*

2015 | **First place hackathon winner**. NOVA University Lisbon

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] Training DNNs resilient to adversarial and random bit-flips by learning quantization ranges. *TMLR*K. Chitsaz, G. Mordido, J. David, F. Leduc-Primeau.
- [4] Deep learning on a healthy data diet: Finding important examples for fairness. *AAAI'23*A. Zayed, P. Parthasarathi, <u>G. Mordido</u>, H. Palangi, S. Shabanian, S. Chandar.
- [5] Improving meta-learning generalization with activation-based early-stopping. *CoLLAs*'22
 S. Guiroy, C. Pal, G. Mordido, S. Chandar.
- [6] Compressing 1D time-channel separable convolutions using sparse random ternary matrices. INTERSPEECH'21
 G. Mordido, M. Keirsbilck, A. Keller.
- [7] Assessing image and text generation with topological analysis and fuzzy logic. WACV'21

 G. Mordido*, J. Niedermeier*, C. Meinel.
- [8] Mark-Evaluate: Assessing language generation using population estimation methods. *COLING'20*G. Mordido, C. Meinel.
- [9] microbatchGAN: Stimulating diversity with multiadversarial discrimination. WACV'20
 G. Mordido, H. Yang, and C. Meinel.
- [10] **Monte Carlo gradient quantization**. *CVPR'20 WS* G. Mordido, M. Keirsbilck, A. Keller.
- [11] Instant quantization of neural networks using Monte Carlo methods. NeurIPS'19 WS
 G. Mordido, M. Keirsbilck, A. Keller.

Selected Activities

2022 - Now

Organizer. Workshop on Hardware-Aware Efficient Training (ICML'22), Conference on Lifelong Learning Agents (CoLLAS'22), Chandar Research Lab Symposium at Mila (CRL'22,23).

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'18, Big Data'17.

2017 - Now

Invited speaker. Mila (2022, 2023), MIT (2021), UBC (2021), GTC (2021), SAP TechEd (2017).

Teaching

Fall 2022 | Machine Learning. Lead TA, Poly MTL

Winter 2022 | Neural Networks. Guest Lecturer, Poly MTL

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

Selected Skills

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