Gonçalo Mordido

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Work Experience

2022 – Now | **Mila & Polytechnique Montreal** (Canada)
Postdoctoral Fellow
- Efficient training and inference of deep neural networks [3, 4, 5].
- Advise 7 Ph.D. students, 4 M.Sc. students, and 1 intern.
- Lead teaching assistant for 1 course and guest lecturer for 1 course.
- Pre-selected for FRQ's **merit scholarship**
- Advisors: Prof. Sarath Chandar
  Prof. François Leduc-Primeau

2017 – 2021 | **Hasso Plattner Institute** (Germany)
Research Associate (4 years)
- Diversification, compression, and evaluation of GANs [7, 8, 9].
- Advised 3 M.Sc. students and 1 intern.
- Teaching assistant for 5 courses and guest lecturer for 1 course.
- Graduated with "**great distinction**".

2020 | **NVIDIA** (Germany)
Research Intern (4 months)
- Compression of convolutional neural networks for speech recognition [1, 6].
- **Recognition award** for "exceptional and outstanding contributions".
- Manager: Dr. Alexander Keller

2018 – 2019 | **NVIDIA** (Germany)
Research Intern (6 months)
- Compression of deep neural networks using Monte Carlo methods [2].
- Manager: Dr. Alexander Keller

2016 – 2017 | **NOVA University Lisbon** (Portugal)
Research Assistant (1 year)
- Automated organization and quality analysis of user-generated audio content.

Education

2017 – 2021 | **Hasso Plattner Institute** (Germany)
Ph.D. in Artificial Intelligence
- Grade: *Magna cum laude*
- Advisor: Prof. Christoph Meinel

2015 – 2017 | **NOVA University Lisbon** (Portugal)
M.Sc. in Computer Science
- Grade: *A*
- Advisors: Prof. Sofia Cavaco
  Prof. João Magalhães

2012 – 2015 | **NOVA University Lisbon** (Portugal)
B.Sc. in Computer Science
- Grade: *A*
- Best final year project.

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

[3] **Sharpness-aware training for accurate inference on noisy DNN accelerators.** *CoLLAs'22 WS, EIW'22, In sub.*
G. Mordido, S. Chandar, F. Leduc-Primeau.

[4] **Deep learning on a healthy data diet: Finding important examples for fairness.** *In submission.*
A. Zayed, P. Parthasarathi, G. Mordido, 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 multi-adversarial discrimination**. *WACV'20*
G. Mordido, H. Yang, and C. Meinel.

Selected Talks

2022 | **Sharpness-aware training for robust DNNs**. *Mila*

2021 | **Compression methods for neural networks**. *MIT CSAIL*
Convolutions by random ternary matrices. *GTC'21*

Selected Activities

2022 | **Co-organizer**. *Hardware-Aware Efficient Training* workshop at ICML'22, *Conference on Lifelong Learning Agents* (CoLLAs'22), *CRL Symposium*.

2017 – 2022 | **Reviewer**. *ICML'22 WS, EMNLP'21, EACL'21, CVPR'21, Knowledge-Based Systems, ACL'20, EMNLP'20, WACV'20, ICIS'19, Neural Computing & Applications, IEEE Access'18, IEEE Big Data'17*.

Selected Skills

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