


Gonalo Mordido

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Experience

2022 – Now	Mila - Quebec AI Institute & Polytechnique Montreal (Canada) <i>Postdoctoral Fellow</i> <ul style="list-style-type: none">Efficient processing of deep neural networks by leveraging algorithm-hardware co-design.
2020	NVIDIA (Germany) <i>Research Intern</i> (4 months) <ul style="list-style-type: none">Compression of depth-wise separable convolutions in deep neural networks.
2018 – 2019	NVIDIA (Germany) <i>Research Intern</i> (6 months) <ul style="list-style-type: none">Compression of deep neural networks using Monte Carlo methods.
2016 – 2017	NOVA University Lisbon (Portugal) <i>Research Assistant</i> (1 year) <ul style="list-style-type: none">Automated discovery and quality assessment of user-generated content with machine learning.

Education

2017 – 2021	Hasso Plattner Institute (Germany) <i>Ph.D. in Artificial Intelligence</i> <ul style="list-style-type: none">Grade: Magna cum laudeThesis: Diversification, compression, and evaluation methods for generative adversarial networks.
2015 – 2017	NOVA University Lisbon (Portugal) <i>M.Sc. in Computer Science Engineering</i> <ul style="list-style-type: none">Grade: AThesis: Automated organization and quality analysis of user-generated audio content.
2012 – 2015	NOVA University Lisbon (Portugal) <i>B.Sc. in Computer Science Engineering</i> <ul style="list-style-type: none">Grade: A

Awards & Recognition

2021	Honors Ph.D. graduation. Hasso Plattner Institute
2020	Recognition award for "exceptional and outstanding contributions". NVIDIA
2015	Best bachelor's project. NOVA University Lisbon
2015	1st place hackathon. NOVA University Lisbon

Patents

2022	Incorporating a ternary matrix into a neural network. A. Keller, G. Mordido, M. Van keirsbilck. <i>US Patent App. 17/356,279</i>
2019	Representing a neural network utilizing paths within the network to improve a performance of the neural network. A. Keller, G. Mordido, N. Gamboa, M. Van keirsbilck. <i>US Patent App. 16/352,596</i>

Publications

- 2022 | **Sharpness-aware training for accurate inference on noisy DNN accelerators.**
G. Mordido, S. Chandar, F. Leduc-Primeau. *Under review*
- Deep learning on a healthy data diet: Finding important examples for fairness and performance.**
A. Zayed, P. Parthasarathi, G. Mordido, H. Palangi, S. Shabanian, S. Chandar. *Under review*
- Improving meta-learning generalization with activation-based early-stopping.**
S. Guiroy, C. Pal, G. Mordido, S. Chandar. *Under review*
- MemSE: Fast MSE prediction for noisy memristor-based DNN accelerators.**
J. Kern, S. Henwood, G. Mordido, E. Dupraz, A. Aissa-El-Bye, Y. Savaria, F. Leduc-Primeau. *AICAS 2022*
- Tiny CNN for seizure prediction in wearable biomedical devices.**
Y. Zhang, Y. Savaria, S. Zhao, G. Mordido, M. Sawan, F. Leduc-Primeau. *EMBC 2022*
- 2021 | **Compressing 1D time-channel separable convolutions using sparse random ternary matrices.**
G. Mordido, M. Keirsbilck, A. Keller. *INTERSPEECH 2021*
- Evaluating post-training compression in GANs using locality-sensitive hashing.**
G. Mordido, H. Yang, C. Meinel. *Preprint*
- Assessing image and text generation with topological analysis and fuzzy logic.**
G. Mordido*, J. Niedermeier*, C. Meinel. *WACV 2021*
- 2020 | **Mark-Evaluate: Assessing language generation using population estimation methods.**
G. Mordido, C. Meinel. *COLING 2020*
- Best student forcing: A simple training mechanism in adversarial language generation.**
J. Sauder*, T. Hu*, X. Che, G. Mordido, H. Yang and C. Meinel. *LREC 2020*
- Monte Carlo gradient quantization.**
G. Mordido, M. Keirsbilck, A. Keller. *CVPR 2020 EDLCV workshop*
- Improving the evaluation of generative models with fuzzy logic.**
J. Niedermeier*, G. Mordido* and C. Meinel. *AAAI 2020 Meta-Eval workshop*
- microbatchGAN: Stimulating diversity with multi-adversarial discrimination.**
G. Mordido, H. Yang, and C. Meinel. *WACV 2020*
- 2019 | **Instant quantization of neural networks using Monte Carlo methods.**
G. Mordido*, M. Keirsbilck*, A. Keller. *NeurIPS 2019 EMC2 workshop*
- 2018 | **Pseudo-ground-truth for adversarial text generation using reinforcement learning.**
J. Sauder, X. Che, G. Mordido, H. Yang and C. Meinel. *NeurIPS 2018 Deep RL workshop*
- Dropout-GAN: Learning from a dynamic ensemble of discriminators.**
G. Mordido, H. Yang, and C. Meinel. *KDD 2018 DL'Day*
- 2017 | **Automatic organisation, segmentation, and filtering of user-generated audio content.**
G. Mordido, J. Magalhaes, and S. Cavaco. *MMSP 2017*
- Automatic organisation and quality analysis of user-generated content with audio fingerprinting.**
G. Mordido, J. Magalhaes, and S. Cavaco. *EUSIPCO 2017*

Mentoring

2022 – Now	Charmi Chokshi. <i>Professional Master's student</i> , Mila - Quebec AI Institute & Amazon Kaushik Moudgalya. <i>Professional Master's student</i> , Mila - Quebec AI Institute & Jumio Selim Gilon. <i>Professional Master's student</i> , Mila - Quebec AI Institute & E-SMART Control Pranshu Malviya. <i>Ph.D. student</i> , Mila - Quebec AI Institute & Polytechnique Montreal Abdelrahman Zayed. <i>Ph.D. student</i> , Mila - Quebec AI Institute, Polytechnique Montreal & Microsoft Simon Guiroy. <i>Ph.D. student</i> , Mila - Quebec AI Institute & University of Montreal Jonathan Kern. <i>Ph.D. student</i> , Polytechnique Montreal Sébastien Henwood. <i>Ph.D. student</i> , Polytechnique Montreal Yang Zhang. <i>Ph.D. student</i> , Polytechnique Montreal Batoul Sayegh. <i>Ph.D. student</i> , Polytechnique Montreal Kamran Chitsaz. <i>Master's student</i> , Polytechnique Montreal
2021	Philipp Hildebrandt. <i>Master's student</i> , Hasso Plattner Institute
2020	Cornelius Hagmeister. <i>Master's student</i> , Hasso Plattner Institute
2019	Julian Niedermeier. <i>Master's student</i> , Hasso Plattner Institute
2018	Jonathan Sauder. <i>Research intern</i> , Hasso Plattner Institute

Presentations

2021	Oral presentation. <i>INTERSPEECH 2021</i> Invited talk. <i>MIT</i> Oral presentation. <i>GTC 2021</i> Spotlight presentation. <i>WACV 2021</i>
2020	Oral presentation. <i>COLING 2020</i> Spotlight presentation. <i>CVPR 2020 EDLCV workshop</i> Spotlight and poster presentation. <i>WACV 2020</i> Oral presentation. <i>AAAI 2020 Meta-Eval workshop</i>
2019	Oral and poster presentation. <i>NeurIPS 2019 EMC2 workshop</i>
2018	Poster presentation. <i>KDD 2018 DL'Day</i>
2017	Invited talk. <i>SAP TechEd 2017</i> Poster presentation. <i>EUSIPCO 2017</i>

Academic service

2022	Reviewer. <i>HAET workshop at ICML 2022</i> Reviewer. <i>CoLLAs 2022 (workshop track)</i> Co-organizer. <i>Hardware-Aware Efficient Training (HAET) workshop at ICML 2022</i> with François Leduc-Primeau, Ghouthi Hacene, Vincent Gripon, Vahid Nia, Julie Grollier, and Yoshua Bengio. Co-organizer. <i>1st Conference on Lifelong Learning Agents (CoLLAs 2022)</i> with Sarath Chandar, Razvan Pascanu, Doina Precup, and others.
2021	Reviewer. <i>EMNLP 2021</i> External reviewer. <i>Knowledge-Based Systems</i> External reviewer. <i>CVPR 2021</i> Reviewer. <i>EACL 2021</i>
2020	Reviewer. <i>ACL 2020</i> Reviewer. <i>EMNLP 2020</i> Reviewer. <i>WACV 2020</i>
2019	External reviewer. <i>Neural Computing and Applications</i> Reviewer. <i>ICIS 2019</i>
2018	External reviewer. <i>IEEE Access</i>
2017	External reviewer. <i>IEEE Big Data 2017</i>

Teaching

2022	Neural networks: Architectures and applications (graduate course, Polytechnique Montreal) <i>Guest Lecturer & Assignment Editor</i>
2021	Clean-IT: Towards sustainable digital technologies (MOOC, openHPI) <i>Guest Lecturer</i>
2020	Practical applications of deep learning (graduate course, Hasso Plattner Institute) <i>Teaching Assistant</i>
2019	Machine intelligence with deep learning (graduate course, Hasso Plattner Institute) <i>Teaching Assistant</i>
2018	Competitive problem solving with deep learning (graduate course, Hasso Plattner Institute) <i>Teaching Assistant</i>
2017	Machine intelligence with deep learning (graduate course, Hasso Plattner Institute) <i>Teaching Assistant</i> Natural language generation using GANs (graduate project, Hasso Plattner Institute) <i>Teaching Assistant</i>