

Jonas Ngnawé

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[Google Scholar](#)

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EDUCATION

PhD in Computer Science

Fall 2021 - (Ongoing)

- [Mila](#) and [Intelligence and Data Institute \(IID\)](#), Laval University, Quebec, Canada
- [Visiting Student Researcher](#), Stanford University, Fall 2025

MSc. in Machine Learning

2018 - 2019

[AIMS African Master's of Machine Intelligence](#), Kigali, Rwanda

Taught by international experts, a Master's program funded by Meta and Google,

[Complete list of courses](#) (ML Fundamentals, Computer Vision, NLP, etc.)

MSc. in Mathematical Sciences

2016 - 2017

[African Institute for Mathematical Sciences](#), Limbe, Cameroon

MSc. in Computer Engineering

2011 - 2016

[Ecole Polytechnique Yaoundé](#), Cameroon

PUBLICATIONS

- [Detecting Brittle Decisions for Free: Leveraging Margin Consistency in Deep Robust Classifiers](#), Ngnawé, J., Sahoo, S., Pequignot, Y., Precioso, F., & Gagné, C. (**NeurIPS 2024**).
- [A Layer Selection Approach to Test Time Adaptation](#), Sahoo, S., ElAraby, M., Ngnawé, J., Pequignot, Y., Precioso, F., & Gagné, C. (**AAAI 2025**).
- [A Guide to Robust Generalization: The Impact of Architecture, Pre-training, and Optimization Strategy](#), Heuillet, M., Bhagwatkar, R., Ngnawé, J., Pequignot, Y., Larouche, A., Gagné, C., Rish, I., Ahmad, O., Durand, A. (**Preprint**)
- [Robustmix: Improving Robustness by Regularizing the Frequency Bias of Deep Networks](#). Ngnawé, J., Njifon, M. A., Heek, J., & Dauphin, Y. (**NeurIPS 2022 Workshop on Distribution Shifts**).
- [Scalable Inference with Distributed Gaussian Processes using the Wasserstein Barycenter](#). Ngnawé, J., Deisenroth, M. (Master's project)
- [k-Clustering Problem-Application to a Field Technician Allocation Optimization Problem](#). Ngnawé, J., Zacko, E., Wandji, N., Ndjinga, M. (Master's project)

AI/ML EXPERIENCE

Google AI resident

Google Brain Team Accra, Ghana

Oct 2019 - Sep 2021

- Development of robust methods for deep neural networks
- Compression of deep neural networks by quantization and pruning

Summer Schools

- [Machine Learning Summer School \(MLSS\), London 2019](#)
- [DLRL: Deep Learning and Reinforcement Learning Summer School, Edmonton 2025](#)

AI/ML SKILLS

ML Frameworks

Pytorch, Tensorflow, Scikit-Learn

MLOps Tools

Git/Github, Weight&Biases, Docker, Ray, Slurm, Google Cloud Platform

Other

Distributed Training, VLMs/LLMs, Adversarial Evaluation

OTHER EXPERIENCE

Software Developer Intern, Bolloré Africa Logistics, Port of Douala, Cameroon

Feb -

Aug 2016

- Automation and Analysis of the Review of Access Rights to the Information System
- Detection of abnormal access rights

Tools, Languages and Methods: Talend Open Studio, Qlikview, C#, ASP.Net, Microsoft SQL Server, Visual Studio, UML/Merise, BPMN 2.0, PMI Methodology

Computer engineer, GroupOne Holding Company, Limbe, Cameroon

Jan - Aug 2018

- Website development
- Fuel consumption prediction projects
- Studies for the creation of a startup incubator (Business plan)
- Industrial Maintenance (Refinery) of the Honeywell Experion System
- IT Support

Tools, Languages and Methods: HTML5/CSS3/JavaScript/JQuery/JQueryUI/Ajax/PHP, MySQL, Méthodologie PMI, Business Model Canvas

Freelance Software Developer

2017-2018

- Digitization of administrative procedures for various ministries in Cameroon,
- Development and maintenance of WordPress plugins (WooCommerce)

Tools, Languages and Methods: DevOps, Electronic Document Management (EDM)/Electronic Archiving ([MARCH RM](#)), PHP, WooCommerce, MySQL Workbench, Microsoft Access, Git/Gitlab/Github, Java, Netbeans, SCRUM

Talks

- **Panellist, “AI Regulation & Fairness in the Generative AI Era.”** Black In AI Workshop at Neurips 2024
- **“Detecting Brittle Decisions for Free”** [Kmer AI June 2024](#), [Galsen AI January 2025](#)
- **Keynote speaker, “Robustness in AI”** [Deep Learning IndabaX-Cameroon](#) Dec. 27, 2022
- **Host at** [Kmer AI Talks](#)

Reviews

- NeurIPS
- [IEEE Transactions on Image Processing](#)
- [Algorithmic Fairness through the Lens of Causality and Robustness](#) @NeurIPS 2021
- [Algorithmic Fairness through the Lens of Causality and Privacy](#) @NeurIPS 2022
- [Algorithmic Fairness through the Lens of Time](#) @NeurIPS 2023
- [Algorithmic Fairness through the Lens of Metrics and Evaluation](#) @NeurIPS 2024
- [Montreal AI Symposium](#) 2022, 2024
- [Black in AI Workshop](#) @NeurIPS 2022, 2023, 2024
- [Deep Learning Indaba](#), Pan-African Machine Learning Conference, 2023

Leadership and Event Organization

- **Organizing committee of** [Interpolate workshop @Neurips2022](#): First Workshop on Interpolation Regularizers and Beyond.
- **Co-organizer of a Machine Learning Projects Competition (MLPC)** 2020, 2021, 2022, Polytechnique Yaoundé.
- **Co-organizer of a two (02) week introductory course in Machine Learning**, September 2019, Polytechnique Yaoundé.
- **Co-organizer of the first Deep Learning IndabaX Rwanda**, Machine Learning and AI conference, April 2019, Kigali, Rwanda.

- **Co-Founder of Kmer-AI**, an association for promoting and vulgarizing AI and Machine Learning in Cameroon. Since 2020.