Jonas Ngnawe
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STUDIES

PhD in Computer Science   Fall 2021 - (Ongoing)
Mila and Intelligence and Data Institute (IID), Laval University, Quebec
Adversarial Robustness, Distribution Shifts and Uncertainty of Deep Learning Models
Check out my work at Jonas Ngnawé - Google Scholar
Highlight: Detecting Brittle Decisions for Free: Leveraging Margin Consistency in Deep Robust Classifiers Accepted at NeurIPS 2024

Master in Machine Learning   2018 - 2019
AIMS African Master's of Machine Intelligence, Kigali, Rwanda
Taught by international experts, a Master's program funded by Facebook and Google,
Link Complete list of courses (Fundamentals, Vision, NLP etc.)
Project: Scalable Inference with Distributed Gaussian Processes using the Wasserstein Barycenter.

Master in Mathematical Sciences   2016 - 2017
African Institute for Mathematical Sciences, Limbe, Cameroon
Project: k-Clustering Problem-Application to a Field Technician Allocation Optimization Problem.

Engineer's Degree in Computer Science   2011 - 2016
Ecole Polytechnique Yaoundé, Cameroon

Other: Machine Learning Summer School (MLSS), London 2019

PROFESSIONAL EXPERIENCE

Google AI resident   Oct 2019 - Sep 2021
Google Brain Team Accra, Ghana
  - Development of robust methods for deep neural networks
  - Compression of deep neural networks by quantization and pruning

Tools, Languages and Methods: Python/Tensorflow 2.0, Google Cloud Platform (GCP)
Publication: Robustmix: Improving Robustness by Regularizing the Frequency Bias of Deep Networks. Accepted at NeurIPS 2022 Workshop on Distribution Shifts: Connecting Methods and Applications.

Software Developer Engineer Internship   Feb - August 2016
Bolloré Africa Logistics, Port of Douala, Cameroon
  - 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   Jan - Aug 2018
GroupOne Holding Company, Limbe, Cameroun

- 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

<u>Tools, Languages and Methods:</u> 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)

<u>Tools, Languages and Methods:</u> Electronic Document Management (EDM)/Electronic Archiving(MARCH RM), PHP/Woocommerce, MySQL Workbench, Microsoft Access, Git/Gitlab/Github, Java, Netbeans, SCRUM

ADDITIONAL SKILLS

Data Science/AI   Pytorch, Scikit-Learn, Pandas, Weight&Biases, Matlab, Octave, Docker etc.

ACTIVITIES

Host at KmerAI Talks

Keynote speaker at Deep Learning IndabaX-Cameroon: Robustness in AI.
Dec. 27, 2022

Organizing committee member of Interpolate workshop @Neurips2022: First Workshop on Interpolation Regularizers and Beyond.

Founding member of Kmer-AI, an association for the promotion and vulgarization of AI and Machine Learning in Cameroon.
Since 2020

Co-organizer of a Machine Learning Projects Competition (MLPC)
Since 2020
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, a conference on Machine Learning and AI
April 2019, Kigali, Rwanda

Reviews: Algorithmic Fairness through the Lens of Causality and Privacy (2022), Montreal AI Symposium, Black in AI Workshop @NeurIPS, Deep Learning Indaba (2022, 2023, 2024)