JONAS NGNAWE

ngnawejonas@gmail.com◇ — ngnawejonas.github.io
LinkedIn:jonas-ngnawe-bb7712a2—Twitter: @jngnawe

EDUCATION

(Ongoing) Ph.D in Computer Science(Machine Learning), Quebec *September 2021 - To date*
PhD topic: Improving Adversarial Robustness through Detection and Regularisation.
at Université Laval and Mila-Quebec AI Institute

African Master's in Machine Intelligence (AMMI), Kigali *September 2018 - Septembre 2019*
at AIMS-Rwanda, funded by Facebook and Google

Structured Master's Degree in Mathematical Sciences, Limbe *August 2016 - June 2017*
at AIMS-Cameroon

Master's Degree in Computer Engineering , Yaounde *September 2011 - July 2016*
at Ecole Nationale Supérieure Polytechnique

Baccalauréat C (High School Leaving Certificate) *June 2011*
Option: Mathematics and Physics.

PROJECTS

Robustmix: Improving Robustness by Regularizing the Frequency Bias of Deep Networks.
Work done during AI residency at Google with Marianne Abemgnigni, Jonathan Heek and Yann Dauphin.

Scalable Inference with Distributed Gaussian Processes using the Wasserstein Barycenter.
Master's project, African Master's in Machine Intelligence, AIMS-Rwanda.

k-Clustering Problem-Application to a Field Technician Allocation Optimization Problem.
Master's Thesis at AIMS-Cameroon.

Setting up a System for Reviewing Access Rights to the Information System- Bolloré Africa Logistics Study Case.
Master's Thesis at Ecole Polytechnique Yaounde.

WORK EXPERIENCE

Google, Accra, Ghana, Oct 2019 to date
AI Resident

· Machine Learning Research: Quantization, Corruption Robustness.

Groupone Holding Company, Limbe, Cameroon, Jan-Aug 2018
Computer Engineer

· Software & Websites Development, Studies for the Creation of a Startup Incubator, Assitance for the Industrial Maintenance of Honeywell Experion System, IT Assistance.

AIMS-Cameroon, Limbe, Nov-Dec 2017
Teaching Assistant

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Freelance, Aug - Oct 2017, and later
Software Developer

· Digitization of Administrative Processes for various Ministries in Cameroon, Wordpress Plugins Development and Maintenance.

Bolloré Transport and Logistics *(previously Bolloré Africa Logistics)* **, Douala, Cameroon, Feb - Aug 2016**
Software Engineer Intern

· Automation of the Review of Access Rights to the Information System.

Computer Engineering Department of Polytechnique Yaounde, July - Sept 2015
Intern

· Designing a Remote Control System for Electrical Devices via Wi-Fi using an Android Smartphone.

KKT Training Institute, Yaounde, Aug - Dec 2015
Intern

· Basic Electronics for Embedded Systems.

TECHNICAL SKILLS

Machine Learning Tools	Numpy/Scipy, Tensorflow/Keras, Pytorch, Scikitlearn, R, Panda , Matlab/Octave, Wandb.
Programming languages	Python /Java / C# / C / C++ . (Nota: I firmly believe that a programming language is just a tool, the real skill is to find or design the algorithms to solve a problem.)
Web and Mobile Development	HTML5/CSS3/JavaScript/JQuery/Ajax/PHP/J2EE/Asp .Net/Wordpress, CodeIgniter, AndroidStudio.
Real Time and Embedded Systems	Arduino, MSP430, Raspberry pi (Openwrt, Raspbian), wifi module ESP8266.
Databases and BI tools	MySQL, MS SQL Server, Talend Open Studio, Qlikview.
Cloud & Big data	Google Cloud Platform (GCP), Docker, Hadoop , Spark-.
Software Development and Modeling Tools	Eclipse, NetBeans, Android Studio, MySQL workbench, Visual Paradigm, Entreprise Architect, Codeblocks, Git versioning (Github, Bitbucket).
Process Modeling and Software development	UML/Merise, BPMN 2.0, Agile development (SCRUM).
Project management and Communication	PMI methodology, writing business plans.

LANGUAGES

Official languages : French, English

Mother tongues: Tupuri, Fulfulde

SOCIAL AND LEADERSHIP

Co-organizer of the first Deep Learning IndabaX Rwanda 2019, a Machine Learning and AI conference.

Co-organizer of a Machine Learning Project Competition (MLPC) at Ecole Polytechnique Yaounde (2020, 2021), Initiative of James Assiene.

Co-organizer of a two(02) weeks seminar of introductory course in Machine Learning at Ecole Polytechnique Yaounde (sept-oct 2019).

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

OTHER

In the organizing comittee of Interpolate workshop @Neurips: First Workshop on Interpolation Regularizers and Beyond.

Reviewer and Volunteer for Montreal AI Symposium 2022.