

# JONAS NGNAWE

ngnawejonas@gmail.com ♦ — jonas.ngnawe@mila.quebec

## EDUCATION

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

## PAPERS

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**Robustmix: Improving Robustness by Regularizing the Frequency Bias of Deep Nets.**  
OpenReview.

## PROJECTS(THESIS)

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- 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

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- Google Ghana, Accra, Ghana, Oct 2019 to date**  
*AI Resident*
- Machine Learning Research: Model Compression/Quantization, Robustness to Image Corruptions.
- Groupone Holding Company, Limbe, Cameroon, Jan-Aug 2018**  
*Computer Engineer*
- Software & Websites Development, Studies for the Creation of a Startup Incubator, Assistance for the Industrial Maintenance of Honeywell Experion System, IT Assistance.
- AIMS-Cameroon, Limbe, Nov-Dec 2017**  
*Teaching Assistant*
- Courses: Differential Calculus, Control Theory.
- Freelance, Aug - Oct 2017, and later**  
*Software Developer*

- Digitization of Administrative Processes for various Ministries in Cameroon, Wordpress/Woocommerce 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

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<b>Machine Learning Tools</b>	Numpy/Scipy, Tensorflow/Keras, Pytorch, Scikitlearn, R, Panda , Matlab/Octave.
<b>Programming languages</b>	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.)
<b>Web and Mobile Development</b>	HTML5/CSS3/JavaScript/JQuery/Ajax/PHP/J2EE/Asp .Net/Wordpress, CodeIgniter, AndroidStudio.
<b>Real Time and Embedded Systems</b>	Arduino, MSP430, Raspberry pi (Openwrt, Raspbian), wifi module ESP8266.
<b>Databases and BI tools</b>	MySQL, MS SQL Server, Talend Open Studio, Qlikview.
<b>Cloud &amp; Big data</b>	Google Cloud Platform (GCP), Docker, Hadoop , Spark-.
<b>Software Development and Modeling Tools</b>	Eclipse, NetBeans, Android Studio, MySQL workbench, Visual Paradigm, Enterprise Architect, Codeblocks, Git versioning (Github, Bitbucket).
<b>Process Modeling and Software development</b>	UML/Merise, BPMN 2.0, Agile development (SCRUM).
<b>Project management and Communication</b>	PMI methodology, writing business plans.

## LANGUAGES

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Official languages : French, English

Mother tongues: Tupuri, Fulfulde

## SOCIAL AND LEADERSHIP

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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.