

ARMAND DIFFO DSONWA

Data Scientist ~ Mechanical Engineer

African Institute for Mathematical Sciences (AIMS),
Cameroon

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SUMMARY

With a Master's degree in Physics, specializing in Energizing Mechanics, I have developed strong research and scientific communication skills, both in writing and in presenting work. I have acquired expertise in programming and simulating physical systems, which enables me to solve concrete problems using appropriate languages such as MATLAB.

Currently, I'm in the process of obtaining a Master's degree in Data Science at the African Institute of Mathematical Sciences. This program enables me to deepen my knowledge of data science, particularly in the field of machine learning through data analysis and processing, as well as in the field of medicine through the study of inferential statistics.

I'm also developing my programming skills by learning new software such as Python and R. Given the rapid technological progress and growing importance of the healthcare field, I'm considering merging healthcare and artificial intelligence via data science in my future career.

EDUCATION

9/2023 - 2/2024 Master in Data Science,

AIMS Cameroon

Relevant Modules: Big Data Analytic with Python, Data Analysis with R, Atmospheric Physics including thermodynamics, Mathematical Modelling with Python, Numerical Methods, Supervised Learning Methods and Algorithms, Data Analysis with Application to Health , Statistical Inference, Introduction to Quantum Mechanics, Machine Learning in Particle Physics

9/2021 - 7/2023 Master in Energizing Mechanics

University of Dschang, Cameroon

Relevant Modules:

Mechanics of solids and thermomechanics, Instabilities Hydrodynamics, mechanics of fluids, Mechanics and calculation of structures, Signal Processing, Turbulence: Theory and applications, non-linear dynamics, Radiation physics, Failure calculation, limit analysis and fatigue, Methodology and introduction to research

Thesis Topic (Grade : 17.50/20.0)

Synchronization of coupled mechanical systems under the action of a magneto-rheologique damper: Case of the optimized Bouc-Wen.

9/2018 - 7/2021 Bachelor in physics Science

University of Dschang, Cameroon

Relevant Modules: Introduction to internal geophysics and external geophysics, Physics of the Environment, Differential Calculus and Geometry for Physical Sciences, Linear algebra, Probability and Statistics, Vibration and propagation phenomena, Programming with MATLAB, Mechanics of continuous media and resistance of materials, Fluid mechanics

ATTENDING CONFERENCES AND SEMINARS

University of Dschang

- **Artificial Intelligence, Digital Economy, and Transformation of Africa**, held from 26th to 29th November 2022 at the University of Dschang. Cameroon by the Business, Research and Development Forum (FERED-2020).
- **Cameroon's first school on nonlinear dynamics and complex system on hypergraphs**, held from 25th to 28th November 2023 at the University of Dschang Cameroon by the University of Namur, Belgique and University of Dschang Cameroon.

AWARDS

Scholarship

present

Fully funded scholarship to the structured master's program at the African Institute for Mathematical Sciences.

Academic Award

11/2021- 11/2022- 11/2023

Honored with the Academic Excellence Prize three times, which is awarded by the Head of State to recognize the top-performing Cameroonian students

VOLUNTEER WORK

Volunteer

Volunteer 1
Urban-Rural logistics system for farmers (AIMS Cameroon).

10/2023 - 01/2024

- Evaluative study of the density of farmers in the Limbe town (Cameroon)
- Evaluative study of the means of transporting agricultural products from farmers to market
- Design of a digital prototype linking farmers-buyers- transporters to improve the routing of produce

Volunteer

Volunteer 2
Vice President of Young Men's Christian Association (YMCA) of the church club of the Evangelical Church of Cameroon in Dschang city

1/2023-12/2023

- Responsible for the academic follow-up of the movement's members
- Programming the movement's prayer, concert, worship and evangelisation activities
- In charge of discipline within the movement

WORK EXPERIENCE

8/2022-9/2022 Community Humanitarian Emergency Board
Team enumerator

- Census of displaced people from crisis regions: North-West and South-West
- Use of the kobo collect tool to interview displaced people

01/2023 – 3/2023 University of Dschang
Teaching Assistant

- Helping students learn concepts related to their fields through individual and small group tutoring
- Distributing and collecting student work and tests (60%)
- I administered tests, proctored exams, and graded students' work

10/2022-05/2023 Particular
Private lesson provide

- Preparing unit plans and exercises (an average of 10 lessons per chapter) following curriculum guidelines and Common Core Standards
- Monitoring learners' progress through examination sessions (2 per subject)

PROGRAMMING SKILLS

I have some skill in programming languages including: Python, MATLAB, SageMath, LaTeX

SOFT SKILLS

- Teaching, tutoring and counseling abilities
- Strong teamwork Skills
- Critical thinking skills
- Effective communication

LANGUAGES

French : Fluent
English : Intermediate

HOBBIES AND INTERESTS

While I do occasionally play football and enjoy reading non-fiction books, nothing beats the thrill of exploring new places on foot

REFERENCES

- **Mc. Sandrine NGAMGA MABEKOU**
role: Lecturer
Institution: University of Dschang
Email: sandrine.ngamga@univ-dschang.org
- **Dr. Lillian Achola Oluoch**
role: Assistant Lecturer of Statistics and Computational Mathematics
Institution: African Institute for Mathematical Sciences (AIMS) Cameroon
Email: lilian.oluoch@aims-cameroon.org