PERSONAL INFORMATION

FRANK KITTAAN AMOS

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EDUCATION AND TRAINING

Structured Master Degree
Aug 2023-Present

MSc. in Mathematical Sciences

African Institute for Mathematical Science (AIMS)- Cameroon, Limbe, Cameroon.

- I have studied courses like Graph Theory, Complex Networks, Introductory Programming with Python, Optimization and Numerical Methods, Introduction to Climate Science, Stochastic Processes, Cryptography and Cybersecurity, Probability Theory, and Introduction to Data Preprocessing and Feature Engineering Techniques in Machine Learning. I am also currently enrolled in courses on Mathematical Modeling with Python and Dynamical Systems. I presented a research paper titled 'Application of Linear Programming for Profit Maximization in the Production of Chicken Feed at Rico Gado Nutrition' which serve as the basis for my final research project during the program.

Bachelor of Technology
Oct 2015-Sep 2021

B. Tech in Industrial Mathematics

Modibbo Adama University of Technology, Yola, Adamawa State, Nigeria.

- Throughout my five-year bachelor's degree program, I acquired a profound understanding of essential mathematical concepts. This encompassed coursework in various areas, including scientific computing with MATLAB, Mathematical Modeling, Optimization Theory, Functional Analysis, and Probability Theory. Furthermore, I had the privilege of presenting a research paper focused on utilizing logistic models to predict the population of Nigeria.

WORK EXPERIENCE

Jan – Aug 2023

Mathematics Teacher

Rochas Foundation College, Yola, Nigeria. (www.rochasfoundation.org)

- I was responsible for creating engaging and effective mathematics lessons for the students.
- I tailored my instruction to meet the needs of diverse learners and helped students develop essential skills such as problem-solving and critical thinking.
- Part of my goal was to inspire students to appreciate the beauty and power of mathematics.

PERSONAL SKILLS

Languages

- English (Mother Tongue)
- French (Intermediate)
- Hausa (Fluent)

Soft skills/ Communication skills

- Certificate of Achievement (Jobberman, June 2023)

Scientific computing/ Programming skills

- LaTeX (Advanced): used for undergraduate thesis and throughout African Institute for Mathematical Science (AIMS) program
- Canvas (Advanced): manage online courses, assignments, assessments, and communication with students.
- Python (Intermediate): used for scientific computation, creation and advancement of calculators tailored to specific mathematics topics, plotting of graphs, and visualization of images in 3D.
- MATLAB (Intermediate): used for scientific computing processes such as Gaussian Elimination.
- R Studio (Beginner): use for data processing, data cleaning, data extraction and data analysis.

ADDITIONAL INFORMATION

Honours and Awards

- Fully Funded Scholarship at African Institute for Mathematical Science (AIMS)-Cameroon (2003)
- Nigerian Federal Scholarship Board (FSB), Undergraduate Scholarship (2021)

Projects

- Design analysis, and simulation of control system for aircraft in Python. (AIMS, 2023)
  - Data accessed from https://geo.aiddata.org/#!/
  - Data cleaning
  - Analysis of population dynamics, urbanization and economic activity.
  - Analysis of climate patterns, agriculture and livelihoods.
- Sustainable development in Gabon: A data-driven approach. (AIMS, 2023)
  - Develop a simple model using system algebra formal methods.
  - Simulation framework of control system with python
  - Analyse aircraft flight control systems.
- Image Analysis of microscopic fungal infections in a Chadian context. (AIMS, 2023)
  - Implemented data preprocessing and feature engineering for machine learning to ananalyze microscopic images of fungal infections.
  - Utilized image processing algorithms and classification models to identify various types of fungal infections.
  - Collaborated with a multidisciplinary research team to collect and label the dataset.
  - Achieved high accuracy in detecting and classifying fungal infections

References

- Prof. Eddy Kwessi
  Professor, Department of Mathematics, Trinity University, USA.
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- Dr. Paul A. Taylor
  Core Director, Scientific and Statistical Computing Core, National Institute of Mental Health, USA.
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