

# Aurelie Jodelle Kemme

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## About Me

- A highly motivated and goal-oriented individual with a strong background in data science, software development, and marketing. A self-confident and competitive team player who thrives in fast-paced and dynamic work environments. Skilled in Python programming, meteorology, and data analysis.

## Employment History

- 2021 ■ **Ishango Data Science Fellow.** remote, tails.com, UK.  
As a Data Science Fellow through the Ishango.ai program fellowship, I designed and built a recommendation system based on collaborative filtering to help the company recommend products based on customers' purchase behavior. Additionally, I used the RFM-segmentation method to cluster customers by loyalty and combined insights from both models to design a data-driven and targeted marketing strategy.
- 2020 ■ **Software developer(Back-end and Front-end).** ECCAS (Economic Center of Climate Application States), Cameroon.  
As a software developer at ECCAS, I developed a Graphic User Interface to aid weather forecasters in dealing with climate change. Through this experience, I gained tremendous programming skills in Python, CDO (Command Data Operator), and NCL (Ncar Command Language), allowing all member countries of ECCAS to gain operational and cost efficiency. I further developed advanced meteorology and forecasting skills through working at ECCAS.
- 2017 ■ **Brand Ambassador.** MTN Cameroon, Cameroon.  
As a brand ambassador for MTN, I worked to grow their customer base and acquired new clients for their MobileMoney platform and new SIM card registration. This role helped me develop strong marketing skills and build my confidence in a customer-facing role.
- 2012 ■ **Science Tutor.** Chemin de la Reusite, Cameroon.  
Working with students from secondary and high schools, I helped improve their understanding and love for science. This experience enhanced my ability to communicate complex ideas and help people think through problems, highlighting my extroverted personality.

## Projects

- 2022 ■ **Predicting order demand for warehouses.**  
In this project, my goal was to investigate the various factors that affect product demand across different warehouses. To achieve this, I developed a predictive model that could accurately estimate the demand for each product at every warehouse. The main objective of this model was to help the company take proactive measures to balance the demand and supply of products, thereby ensuring optimal inventory levels.
- **Digital Capabilities for Business.**  
I competed in the prestigious BRICS-SKILLS competition, which is organized by the Chinese government and is internationally renowned for showcasing digital capabilities in business. As a competitor, I demonstrated my expertise and skills in the field, highlighting my proficiency in using digital tools to enhance business practices.
- **Financial Inclusion in Africa.** Zindi challenge.  
Using logistic regression, I built a model to predict who is likely to have access to a bank account. I used the Mean Absolute Error as the evaluation metric, demonstrating my goal-oriented approach to problem-solving.
- **Predicting PM2.5 Matter particle to fight Air Pollution.** Zindi challenge.  
I used Support Vector Regression as the best model to predict PM2.5 matter particles in the air. I achieved a lower Root Mean Squared Error and showcased my competitive spirit and data analysis skills.

## Projects (continued)

### ■ Sentiment analysis on Yelp reviews. Project, Remote.

Using the textblob library to create subjectivity and polarity scores, I performed sentiment analysis on Yelp reviews. I also used the word cloud library to visualize all the words in a cloud and to add STOPWORDS. This project demonstrated my self-confidence in working independently and my ability to communicate complex findings to stakeholders.

### ■ Predicting Restaurants Next Inspection Grade model in Las Vegas. Project, Remote.

Using pandas for data exploration and imputation methods to deal with extreme and missing values, I employed various data visualization techniques, including box plots and Pearson correlation analysis, to visualize the relationship between variables. I used oversampling methods to deal with imbalanced data for the dependent variable and Feature Importance Plot to check which features contribute the most to the analysis. For the modeling part, I used the Scikit-Learn library to investigate Logistic Regression, Random Forest, Decision Tree, and Support Vector Machine models. I then used the Confusion matrix for model evaluation, showcasing my analytical and goal-oriented approach to solving complex problems.

### ■ Topological Data Analysis: Fundamental Aspects for Traditional Data Science Approaches. MSc Thesis, AIMS-Cameroon.

TDA explores the intersection of Metric space, Algebraic Topology, Computational Geometry, and Data Science. Specifically, my research focused on Topological Data Analysis (TDA) and its ability to leverage the topological and geometric structures underlying complex datasets for exploratory data analysis and machine learning.

## Education

2021 – ongoing ■ Research assistant in Data Science and Big data analytics, Quantum Leap Africa

2019 – 2021 ■ Master of Science in Industrial Mathematics, African Institute for Mathematical Sciences AIMS-Cameroon. Speciality: *Statistics*

2016 – 2018 ■ Master I . Mathematics, University of Douala, Cameroon. Speciality: *Pure mathematics*.

2013 – 2016 ■ Bachelor degree. Mathematics, University of Douala, Cameroon. Speciality: *Pure mathematics*.

## Skills

Data Base management	■ SQL
Data Exploration	■ Pandas, NumPy, R, Excel, and R-Instat.
Data Visualization	■ Matplotlib, SciPy, and ggplot2.
Data Modelling	■ SciKit-Learn, Keras
Back-end development	■ Tkinter
Other Coding skills	■ $\LaTeX$ , CDO, NCL and SageMaths.
Process mining	■ Rapidminer

## Licenses and Certifications

2022 ■ MACHINE LEARNING FOUNDATIONS Amazon WebSite Machine Learning Foundations certificate. Online certificate issued by UDACITY to prove abilities in machine learning.

■ MACHINE LEARNING LinkedIn Skill Badge. Online Badge issued by LinkedIn to prove abilities in machine learning.

2020 ■ PYTHON edX. E-learning. Online Course, Certificate issued by International Business Management Institute (Berlin/Germany) to prove abilities in programming with python.

■ CODING INTRO edX. E-learning. Online Course, Certificate issued by International Business Management Institute (Berlin/Germany) to prove abilities in programming with python.