# Olaoluwa Ogunleye

MS, Applied Mathematics – GPA 3.91/4.0

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### **EDUCATION**

Clarkson University New York

PhD, Applied Mathematics

Research: Computational Maths, Machine Learning, Data-Driven Science

Coursework: Machine Learning, Statistics, Data Mining, Database Systems, Numerical Analysis

University of Rijeka Fall 2020 – Spring 2021

Study Abroad – Artificial Intelligence, Graph Theory, Cryptography & Coding Theory

Rijeka, Croatia

Lagos

Fall 2021 - Spring 2025

Fall 2021 - Spring 2023

University of Lagos Fall 2014 – Fall 2018

BS, Mathematics – GPA 3.70/4.0

Coursework: Computational Methods, Data Analytics, Algorithms, Linear Algebra

#### **SKILLS**

- Programming (Python, Java, JS, Matlab, React, Redux, Visx, C++, Go, Django)
- Data Analytics and Visualization (R, MySQL, Pandas, Numpy, Matplotlib)
- Machine Learning (Text Mining, Recommender Systems, Speech Recognition)
- Applied Maths (Time Series, Numerical Methods, Differential Equations, Probability)

#### **WORK EXPERIENCE**

BlackRock Summer 2022

Software Engineer (Intern)

San Francisco

- Built a fully functioning backend framework of multiple APIs crunching billions of data, collecting 100,000+ data scores
  files from appropriate directories, and displaying in real-time corresponding frontend graphical representation
- Developed API for constructing master dataset (data cleaning, time series transformations, aggregations/feature engineering) and front-end panel component for data visualization of time series scores

Clarkson University New York

Software Engineering TA

Fall 2022

- o Led an 8-week intensive software engineering Bootcamp to 30+ graduate students, introducing core programming fundamentals classes, objects, linked-list, hashmaps, and queues.
- o Collaborating with NSBE (National Society of Black Engineers) and CUGSA (Clarkson University Graduate Student Association) to provide Leetcode premium access to students across engineering, data science, mathematics, and physics student

Machine Learning Researcher Spring 2022

- o Developed a logistic regression model for predicting mood responses to various exercise types with 97% accuracy
- o Performed data cleaning, and descriptive and statistical analysis by sex with Nonparametric tests leading to the significant result that females tend to show a higher mood reaction than their male counterparts.
- o Collaborated in building a person detection machine learning algorithm with a 98.6% accuracy using the HOG feature

Utiva Inc Summer 2020

Product Manager (Intern)

Remote

- Collaborated with UX/UI experts and marketing teams to develop strategies that increased sales and improved product
- Conducted user research to understand user behavior and identify trends in the business.

Anchor University Aug. 2019 – Mar. 2020

Research Assistant

Lagos

- Organized regular office hours on applied statistics aiding 20+ graduate students perform statistical analysis of their diverse research work, leading to a 10% increased exposure to multiple interdisciplinary research
- Collaborated with CS and Maths faculty in managing the IEEE conference on the future of computing

Strategic Outsourcing Ltd. Summer 2019

Data Analyst Lagos

Doubled productivity by applying the VLOOKUP function across multiple Excel payroll database systems of over 6,000 employees, co-managed google forms for quarterly staff appraisal & ensured adequate reports filling

### **AWARDS**

- Award of Commendable Leadership and Service by Clarkson University Phalanx
- Black Excellence Award by Clarkson University DEI
- \$400 Student Travel Grants by CUGSA (Clarkson University Graduate Student Association)
- PhD Scholarship and Teaching Assistantship by Clarkson University
- Study Abroad Scholarship by EU financed through <u>European Social Fund OPTILIFE project</u>
- BS Presidential Award of Academic Excellence by University of Lagos
- Award of Academic Excellence by First Class Foundation University of Lagos

### **SERVICE**

- President Association of Women in Mathematics | President Student Maths Club
   Member Clarkson Open Source Institute (COSI) | Member Google Developers Club
   Member National Society of Black Engineers Clarkson Chapter (NSBE)
- Member Clarkson University Graduate Student Association (CUGSA)

# **TECH PROJECTS**

Stack: Python, OpenCV, Sklearn, NLTK, Pandas, Numpy, Matplotlib

- Face Recognition (CV): Built a Real-Time Face Mask Detection System predicting whether or not a person wears a mask
- Spam Detection (NLP): Developed an SMS classifier that returns with a level of accuracy if a message is a spam or not
- Recommender System: Built a movie recommendation engine that predicts content based on user's preference

## **RESEARCH & PUBLICATIONS**

Stack: Time Series, CNN, Statistics, Feature Engineering, Numerical Methods, Image Understanding

- Abstract Publication: Mood Responses to Various Exercise Types Using the Ontological Definitions of Exercise
- <u>Data-Driven Prediction of Mood Response to Exercise Types</u> (Supervisor: Dr. Sumona Mondal)
- <u>Successive Substitution Method Numerical Analysis</u> (Supervisor: Dr. Olaniyi Iyiola)
- Orthogonal Complements and Minimization Problems (Supervisor: Dr. Olaniyi Iyiola)
- Convolutional Neural Network Data Driven Science (Supervisor: Dr. Abd Al Rahman Al)
- Image Processing: Application of Matrix Theory and Computation (Supervisor: Dr. Olaniyi Iyiola)
- Some Fixed Point Theorems and Their Applications (Supervisor: Prof. J. O. Olaleru & Dr. Hallowed Olu)
- Successive Over-Relaxation and Ill-Conditioned Systems (Supervisor: Dr. Julius Ehigie)

## **CONFERENCES & WORKSHOP**

- 2022 Workshop on Methods for Three-Dimensional Microstructure Studies Carnegie Mellon University
- IEEE 2020 Conference on Mathematics, Computer Science & Computer Engineering Anchor University, Lagos
- Statistical Techniques for Collecting and Analyzing Research Data LISA 2020 conference
- 2018 endow-Africa Technology Development Workshop on IoT, transport networks & access networks (4G, 5G).
- 2nd International Institutes of Digital Cultures and Scholarships (LSSDH 2018) University of Lagos
- 2018 KOBO Creative Digital Techies Workshop on Predictive Analytics and Digital Humanities