# **Deborah Dormah Kanubala**

Africa Institute for Mathematical Sciences/AMMI Ghana Summerhill Estates | East Legon Hills | Santoe | Accra | Ghana

M dkanubala@aimsammi.org Youtube\_channel in





LinkendIn (7)



Github

## **EDUCATION**

MSc. Machine Intelligence: African Institute for Mathematical Science, Accra-Ghana, Oct, 2019- August 2020

**Specialization:** Machine Learning, Explainable AI, Financial Inclusion

- Mphil. Applied Mathematics, Kwame Nkrumah University of Science and Technology, Kumasi-Ghana, Oct, 2019- Nov, 2020 **Specialization**: Machine Learning, Finance
- MSc. Mathematical Science: African Institute for Mathematical Science, Senegal, 2017-2019.

**Specialization:** Financial Mathematics, Big data

BSc. Financial Mathematics: University for Development Studies, Ghana, 2012-2016

**Specialization:** Financial Mathematics

#### RESEARCH EXPERIENCE

Master's thesis; African Institute for Mathematical Sciences (AIMS-Ghana), July, 2020 – Present

Research Title: Drivers of Financial Inclusion in Africa using Machine Learning Techniques

Lead Researcher: Mastercard Foundation Scholar's Research, Ghana & Uganda, July, 2019-March, 2020

**Research Title:** Increasing Women in STEM Transition into Tertiary Education

Master's thesis; African Institute for Mathematical Sciences (AIMS), Senegal, July 2018-January, 2019

Research title: Pricing Options Using Finite Difference Methods and Monte Carlo Simulations

**Mphil thesis:** Kwame Nkrumah University of Science and Technology, Kumasi-Ghana, Oct, 2019-Sep, 2020

Research title: Machine Learning in Pricing European Call Options

**Bachelor thesis:** *University for Development Studies (UDS)*, Ghana, January – June, 2016 **Research title:** Challenges Customers face in acquiring loans from Financial Service

#### **WORK EXPERIENCE**

 Teaching Assistant: <u>Neuromatch Academy</u> Summer School, June, 2020 - July, 2020

**Job description:** Facilitating students from over 10 countries pod discussions, Aiding students to solve challenging problems and guiding them in group projects.

- Data Scientist: <u>Manobi Africa</u>, Dakar-Senegal, May, 2018 Dec, 2018
   Job description: Developing Credit Risk Scoring Algorithms for Farmers in the Smallholder Setting.
- Research Scholar: MasterCard Foundation Scholars Research Grant, July, 2019 Dec, 2019

**Job description:** Managing the entire project life, Training field agents for data collection, data analysis for project.

- **Teaching Assistant:** University for Development Studies, 2016-2017 **Job Descriptions:** Handling courses on financial derivatives, Investment Analysis and Portfolio Management.
- **Customer Service Intern: Ecobank**, May, 2015- Aug, 2015 **Job Descriptions:**Inventory of daily cheques in the database of the bank's system, assist clients complete account opening forms.

#### PRESENTATIONS/ TALKS

- <u>Machine Learning in pricing options</u>, Machine Learning Summer School, Germany, June, 2020.
- <u>Building Career in AI/ML</u>, Accra June, 2019.
- Poster Presentation International Congress on Industrial and Applied Mathematics, Valencia, Spain, July, 2019.
- Closing Remark: Heidelberg Laureate Forum, Germany, Sep. 2018.
- <u>Deep Learning Indaba Spotlight Talk</u> Talk. Kenyatta University, Kenya, August, 2018.

#### **GRANTS AND FELLOWSHIPS**

- Workshop Grant, Alumnode, Germany, 2019.
- <u>Mastercard Foundation</u> Scholars Research Grant, April, 2019.
- Google and Facebook Scholarship, Masters degree, 2019-2020.

#### **AWARDS**

- Best Poster Presentation, Ghana Data Science Summit, Accra, April, 2019.
- International Congress on Industrial and Applied Mathematics Travel award, Valencia-Spain, March, 2019
- Romberg Grant, 6<sup>th</sup> Heidelberg Laureate Forum, Germany
- Google and Facebook Scholarship, <u>AMMI-Ghana</u>, October 2019

## LEADERSHIP/ VOLUTEERISM

- Organizer: <u>Women in Machine Learning</u>, Ghana, Aug, 2020 Present **Responsibility:** Creating a framework for the group to connect with women in machine learning, organizing meetups
- **Student Delegate:** <u>AIMS-Senegal</u>, Sep, 2017 -Feb, 2019 **Responsibility:** Liaising between students and administration, assisting in the organization of events on campus.
- **Co-Founder:** <u>WPSYG</u>, Accra, Ghana, Dec, 2018 Present **Responsibility:** Creating a framework for the group to connect with women alumni of AIMS network, providing strategic corporate directions, social media strategist.
- Rapporteur: <u>Next Einstein Forum</u>, Kigali, Rwanda, March, 2018
   Responsibility: Writing report for workshop on FINTECH
- President: National Service Association (NASPA), Upper East Region, Ghana
   Responsibility: Presiding meeting, representing association in all board meeting of the secretariat, mediating and resolving problems of members

### **RELEVANT SKILLS**

- Programming ability in Python , Pytorch, Numpy, Sklearn
- Expertise in the use of Microsoft Suite and Latex
- Fluent in English, Intermediate in French, Dagaare, Twi, Gonja

#### REFERENCES

Dr. Moustapha Cisse, Head of Google AI, Ghana, <a href="mailto:mcisse@aimsammi.org">mcisse@aimsammi.org</a>
Dr. Kwara Nantomah, HOD of Mathematics Department, UDS, <a href="mailto:knantomah@uds.edu.gh">knantomah@uds.edu.gh</a>