

Delwende Eliane Birba

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Machine Learning Lecturer at the Virtual University of Ouagadougou.

Co-Founder of [African Women in AI](#).

EDUCATION AND TRAINING

Master in Data Science

KTH Royal Institute of Technology (European Institute of Technology joint program) [01/08/2018 – 30/10/2019]

Thesis: Comparative analysis of data splitting algorithms for machine learning model selection.

<http://kth.diva-portal.org/smash/record.jsf?pid=diva2%3A1506870&dswid=-5076>

Master in Data science

University Nice Sophia Antipolis/France (European Institute of Technology program) [01/09/2017 -01/10/2018]

Bachelor in Computer science

National Chiao Tung University Taiwan [01/09/2013 – 01/07/2017]

HONORS AND AWARDS

- **First girl in Mathematics:** National Olympiad of Burkina Faso [01/09/2011]
- **First girl in Physics:** National Olympiad of Burkina Faso [01/09/2011]
- **Taiwan scholarship 5 years:** Ministry of foreign affairs of Taiwan [2012 -2017]
- **EIT Digital Scholarship:** European Institute of Technology scholarship for outstanding performance[2017-2019]

CONFERENCES AND SEMINARS

- **Co-organiser of African Women in Artificial Intelligence workshop ACM@RecSys 2022**
- **Speaker at AI IN HEALTHCARE CONFERENCE WEST AFRICA 2022,** Talk:Artificial intelligence for healthcare in Africa by Africans
- **Co-hosted event at WiML workshop NIPS2020:** Leading the way for the Next Generation of Black Women in AI
- **WiML workshop co-located at NIPS 2019:** Poster presentation on Machine learning for odor molecules psychophysiological effects prediction
- **Learning Meaningful Representation of Life, NeurIPS 2019 Workshop :** Poster: ML for odor molecules psychophysiological effect prediction
- **Ouaga Fintech Forum 2020:** Panelist Artificial intelligence and financial inclusion
- **Speaker at Africa innovation forum in Taiwan 2016,**

RESEARCH AND EXPERIENCE

Kindred people AB: Software engineer [01/09/2019 – present]

- Implemented mobile payment API for Unibet brand Integrated Swish, Trustly Earthport, Ideal, payment gateways into Kindred group websites.
- Implemented a microservice that acts as a proxy in the payment system.
- Worked with Java Springboot, Docker, Jenkins, Influx, Kubernetes.

Poster presentation University College Dublin Machine Learning Lab Summer School 2022

An explainable XGBoost-based approach towards Preeclampsia risk prediction:

- Implemented machine learning model to predict late-onset preeclampsia based on plasma protein
- Interpretability with SHAP values.
- Extreme gradient boosting method were used to construct the prediction models and achieved AUC score of 0.90.
- [Link](#)

University College Dublin Machine learning Bootcamp, 2021

- Worked on COVID 19 social distance prediction problem.
- Proposed a convolutional neural network to classify the COVID 19 social distance based on the Bluetooth signal, accelerometer, and gyroscope value from the users smartphones

Lecturer at the Virtual University of Ouagadougou [01/01/2021 –present]

- Teaching Introduction to Machine Learning for master in AI and Data Science program
- Contributed to the curriculum proposal
- Master program committee member

University Nice Sophia Antipolis, ChemoSim Lab [01/02/2019 – 30/07/2019]

Research engineer-intern: Performed research on two topics

- The use of machine learning algorithms for odor molecules psychophysiology effects prediction such as heartbeat rate, temperatures, skin conductance, respiration rate
- Performed research on data splitting algorithms for machine learning model selection. ◦
- Formulated several literature reviews, performed data analysis for experiments ◦
- Wrote abstract, and submitted for both WiML and Learning Meaningful Representations of Life workshops
- Wrote a master thesis report.

University Nice Sophia Antipolis, IS3-LAB [01/06/2018 – 30/07/2018]

Research engineer, Intern:

- Performed research on deep learning for correcting misspelling in English and French clinical notes
- Implemented a character level sequence to sequence learning with Long Short-Term Memory
- Recurrent Neural Networks (LSTM RNNs) and Natural language processing to detect and correct misspellings in English and french clinical notes with 97% accuracy
- Formulated several literature reviews, performed data analysis for experiments ◦

CERTIFICATION

- **Certificate for attending the 16th European Conference on Computer Vision.**
- **AI for Medicine Specialization:** deeplearning.ai given by prof Andrew Ng of Stanford University
- **Machine learning in Finance:** EIT DIGITAL summer school 2018 Budapest
- **Neural Networks and Deep Learning:** deeplearning.ai given by prof Andrew Ng of Stanford University

MANAGEMENT AND LEADERSHIP SKILLS

- **Founder of African Women in AI**
- **Co-founder of AI-King group**
- **Co-founder of ExcelTech**
- **External Auditor of Burkinabe association in Taiwan 2014-2015**
- **Assistant Secretary of my church's students group 2011-2012**
- **Treasurer of Bible study group (high school students) 2010-2011**
- **Assistant Secretary of Bible study group (high school students) 2009-2010**

DIGITAL SKILLS

Python, Java, C++, Tensorflow, Keras, PyTorch, R, LSTM, GRU, RNN, Git, Kubernetes, OpenCV

LANGUAGE SKILLS

Moore, French, English, Mandarin, Swedish

MEMBER OF

- Black in AI
- African Women in AI
- Women in Machine learning
- Stockholm AI
- Women in Tech Sweden
- Traductor-lab