


# Engelbert TCHINDE WAMBA

## Data Scientist | Machine Learning | AI Enthusiast

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I am a dynamic, passionate and optimistic individual who seeks to achieve best results from limited time and resources. Following an intensive Machine Learning Master program hosted by the African Institute For Mathematical Science (AIMS) in partnership with Facebook and Google. This Master with 6% of acceptance rate. This program allowed me to acquire programming and data analysis techniques and specifically data engineering, machine learning, advanced analytics skills. I aspire to join and work with an industry that is interested in modelling and solving problems of any kind, and also build a model and advanced data analysis.

## EDUCATION

- Jan 2021-Now** An intensive Machine Learning Master program hosted by the African Institute For Mathematical Science in Senegal (AIMS) in partnership with Facebook and Google, Majoring in Machine Intelligence
- Modules :** Introduction to Machine Learning, Optimization for Machine Learning, Foundations of Machine Learning, Convolutional Neural Networks, Foundations of Deep Learning, Natural Language Processing (NLP), Reinforcement Learning, Computer Vision.
- Thesis :** Spatial information analysis.
- Final Grade :** Not available
- 2019-Feb 2021** Master in Mathematical Science (Big data and computer security), African Institute for Mathematical Sciences (AIMS), Senegal
- Modules :** Data Science, High Dimensional Data Analysis, Data Engineering, Probabilities and Statistics, Networking and Security, Elliptic Curves and Cryptography, Continuous Numerical Optimization.
- Thesis :** Cryptanalysis and algebraic computations : Gröbner basis based cryptanalysis of cryptosystem and analysis of a multivariate public key scheme.
- Final Grade :** Very Good Pass (Above 80%)
- 2017-2019** Master's degree in Applied Mathematics, Partial Differential Equations (PDEs), University of Dschang, Cameroon
- Thesis :** Black hole geometry of Reissner-Nordström.
- 2014-2017** Bachelor's degree, Majoring in Mathematics and Computer Science, University of Dschang, Cameroon






## RESEARCH INTERESTS

- > Data Science
- > Machine Learning
- > Deep Learning
- > Artificial Intelligence

## RESEARCH INTERESTS

- > Data Analytics
- > Data Mining
- > Statistical Modeling
- > Optimization

## EXPERIENCE

- November 2021** | **PMI-Internship | Ishango.ai, KIGALI, Rwanda**
- September 2021** | Use remote sensing to identify classify farm fields in the target country.
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- January 2021** | **Research trainee | SATWII Solutions, QUEBEC, Canada**
- October 2020** |
- > Find an innovative optimization algorithm to solve an optimal power flow problem
  - > SATWII Solutions is a Quebec-based company founded by Dr. Nassirou Lo specializes in the development of innovative technological tools that facilitate strategic and tactical planning.
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|      |  |
|------|--|
| 2019 | Assistant teacher , ABSDs, Association of Bansoa Students of Dschang   |
| 2018 |  |
|      |  |
|      | <ul style="list-style-type: none"> <li>&gt; Helped students in the disciplines they encounter a lot of problem</li> <li>&gt; Taught classes in some scientific subjects : Mathematics, Physics</li> <li>&gt; Organized, advertised and published any event organized by the association</li> </ul> |
|      | Microsoft word   |
| 2016 | Project Group Leader , PROJECT, University of Dschang  |
| 2015 |  |
|      | <ul style="list-style-type: none"> <li>&gt; Created a web pages</li> <li>&gt; Created a dynamic web pages</li> </ul>   |
|      | HTML CSS   |

## IT SKILLS

|                      |  |
|----------------------|--|
| Programming Language | Python, Java, R, HTML & CSS, SQL, SageMath   |
| Data Science         | Data Pipeline Modelling, Data Pre-processing, Data Cleaning, Data Visualizaon                |
| Machine Learning     | Regression, Classificaon, Clustering, Tree Based Algorithms, Bagging, Boosting               |
| Deep Learning        | Neural Network, CNN, RNN, LSTM, Transformer architecture, PyTorch, Tensorflow, Keras, OpenCV |
| Tools & Libraries    | Spacy, SciSpacy, Pandas, Sklearn, Jupyter, Anaconda, Numpy, Seaborn                          |
| Data Base            | Microsoft SQL Server, MySQL, PostgreSQL  |
| Development tools    | Eclipse, Visual Studio Code, git, ArcGIS   |
| Operating systems    | Mac OS Sierra, Windows 10, Windows 7, Linux Centos   |

## LANGUAGES

French ●●●●●  
English ●●●○○

## + STRENGTHS

- > Passionate
- > Motivated
- > Autonomous

## PROFESSIONAL ONLINE TRAINING

|      |  |
|------|--|
| 2020 | Certificate of completion in Cybersecurity Essentials issued by Cisco Networking Academy                     |
| 2020 | Badge in Cybersecurity Intro issued by IBM <a href="#">check here</a>  |
| 2020 | Badge in Python issued by IBM <a href="#">check here</a>   |
| 2020 | Certificate in Real-Time Cyber Threat Detection and Mitigation issued by Coursera <a href="#">check here</a> |
| 2020 | Certificate in Python Functions, Files, and Dictionaries issued by Coursera <a href="#">check here</a>       |
| 2020 | Certificate in Introduction to Data Science in Python issued by Coursera <a href="#">check here</a>          |
| 2020 | Certificate in Data Collection and Processing with Python issued by Coursera <a href="#">check here</a>      |

## COMPETITIONS PARTICIPATED

|      |   |
|------|---|
| 2021 | Certificate of participation in The PRAIRIE / MIAI Artificial Intelligence Summer School (5th - 9th July) |
| 2021 | Participation on zindi Hackathon in AIMS Data Science   |
| 2021 | Participation on kaggle challenge : Cassava disease classification  |
| 2020 | Certificate of participation in the cyber security hackathon issued by BeOpenIT in Senegal                |
| 2020 | Certificate of participation in the IT, IoT and security hackathon issued by ActInSpace in Senegal        |

## + AWARDS AND SCHOLARSHIPS

- > Masters Scholarship awarded by AMMI (African Masters Of Machine Intelligence) in Senegal (2021)
- > Masters Scholarship awarded by AIMS (African Institute for Mathematical Sciences) in Senegal (2019)
- > Academic excellence awarded by University of Dschang (2015, 2016, 2017, 2018)

## ORAL PRESENTATION

|               |  |
|---------------|--|
| February 2021 | Oral presentation of my Master thesis at AIMS Senegal                      |
| 2020          | Oral presentation of our project of challenge ActInSpace at Dakar, Senegal |
| July 2019     | Oral presentation of my Master thesis at University of Dschang, Cameroon   |

## PROJETS

## APPLICATION OF OPTIMIZATION TO THE OPTIMAL POWER FLOW PROBLEM

OCTOBER 2020 - JAN 2021

[Template on Overleaf](#)

Optimal power flow problem is a problem that allow us to found an innovative algorithm whose people will need to maintain the balance between the supply and demand of electricity.

## CRYPTANALYSIS AND ALGEBRAIC COMPUTATIONS : GRÖBNER BASISBASED CRYPTANALYSIS OF CRYPTOSYSTEM AND ANALYSIS OF AMULTIVARIATE PUBLIC KEY SCHEME

MAY 2020 - JULY 2021

[Template on Overleaf](#)

Cryptanalysis and algebraic computations is a project that allows us to know if it is possible to break some cryptographic schemes. Thus its purpose is to analyze the security of a multivariate public key cryptosystem using Gröbner's bases.

## BLACK HOLE GEOMETRY OF REISSNER-NORDSTRÖM

MARCH 2019 - JUNE 2019

The goal of this thesis is to study the behaviour of geodesics close to the black hole singularity whose geometrical framework is the Reissner-Nordström one.

