

# Blessing Itoro BASSEY

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## EDUCATION

### African Masters in Machine Intelligence (AMMI), Ghana

*Masters of Science (75-85%) – Machine Intelligence*

*Graduated: April 2021*

### African Institute for Mathematical Sciences (AIMS), Cameroon

*Masters of Science (70-80%) – Mathematical Sciences*

*Graduated: July 2019*

### University of Ilorin, Nigeria

*Bachelor of Science (Second Class upper) – Mathematics*

*Graduated: July 2016*

## Relevant Projects:

- **Exploratory Data Analysis (EDA) and Topic Modeling on Tweet Data**, A study of internet-collected tweets from January through June of 2020. Utilized concept of “Topic Modeling” to categorize tweets by topic.
- **Cassava Disease Classification**, my team, [TAB-Next](#), won an internal kaggle competition in which we had to assign images of cassava leaves to one of four illness classifications.
- **Object Detection, Segmentation and Human Pose Estimation**, used [Detecron2](#) for a computer vision project that included instance segmentation and object identification, and replicated the research presented in the [Mask RCNN study](#). All of the descriptions for the aforementioned projects, as well as others, may be found [here](#).

## WORK EXPERIENCE

### [54gene](#)

#### Data Analyst

+ Sept. 2021 – Till Date

- Using data-driven methodologies in pharmaceutical R&D to accelerate medical discoveries and revolutionary healthcare solutions, as well as to close the worldwide genome gap.
- Training new personnel on Excel, SPSS, R, and Python for phenotypic data analysis.
- Training research assistants, data entry officers, Pis, and Co-Pis on the computerized data gathering technology.
- Maintaining contact with site and in-house Quality Control personnel to verify participant consent and data quality control.
- Cleaning and maintaining research data, including inputting survey data in spreadsheets/electronic platforms. analysis
- Creating dashboards and summary reports to discover data trends, verifying data input, and offering improvements to enhance leadership decision making.
- Assisting project managers with up-to-date data and informative dashboards for leadership meetings.

### [Smart Agriculture Innovation Center \(SAIC\) at Kyungpook National University, Republic of Korea](#)

#### Research Intern-Machine Learning Track (Remote)

+ Nov. 2020 – Dec. 2021

- Worked on solving optimal sensor placement problems for autonomous condition Green-House monitoring and control, using data-driven machine learning approaches.
- Used reinforcement learning and unsupervised clustering to discover optimal sensor sites for monitoring temperature and humidity.
- Co-authored two peer-reviewed journal articles, **A reinforcement learning approach for optimal placement of sensors in protected cultivation systems** ([IEEE: link](#)) and **An online machine learning-based sensors clustering system for efficient and cost-effective environmental monitoring in controlled environment agriculture**. ([ScienceDirect: link](#))

### [Connecting Language to Actions & the World \(CLAW\) research group, Carnegie Mellon University, Pittsburgh, USA](#)

#### Research Internship - Machine Learning

+ Jun. 2021 – Sept. 2021

- Investigated the role of text in visual content such as images by leveraging on the ViT model
- Fine Tuning the CLIP (*Contrastive Language-Image Pre-training*) model on the TextVQA benchmark

### [Fiverr.com](#)

#### Data Analyst (freelancer)

+ Apr. 2019 – Till Date

- Undertaking research including questionnaire/survey creation/validation, data gathering, and qualitative/quantitative analysis.
- Developing data models and creating effective slideshow presentations, reports, and dashboards.
- Analysis of client data using statistical and machine learning algorithms to provide actionable business reports to aid in gaining insights that can be used to enhance company operations and decision making.

### [Lagos State Bureau of Statistics, Nigeria](#)

#### Statistician (Internship)

+ Jun. 2015 – Dec. 2015

- Participated on a team household survey data collection project. Created surveys, and collected both qualitative and quantitative data to help in decision making.
- Performed quantitative and qualitative data visuals and analyses, using Excel, R, and SPSS packages.

**LEADERSHIP & VOLUNTEER EXPERIENCE****Neuromatch Academy****Teaching Assistant****+ Jul. 2020 - Jul. 2020**

- Responsible for training and coordinating a group of students at Neuromatch Academy 2020, an online summer school.
- Facilitated peer-programming computational neuroscience and machine learning lessons for students.

**Zindi Women's Mentorship Programme****+ Jan. 2020 - Apr. 2020****Data Science/Machine learning Mentor**

- Provided guidance, motivation, and also help my mentee identify resources needed for their career growth in data science and machine learning
- Setting goals and provided feedback on data science projects given by Zindi

**African Institute for Mathematical Sciences****Give Back Team (Lead and Coordinator)****+ Jan. 2019 - Jul. 2019**

- Facilitated meetings and managed the team's agenda execution.
- Promoted initiatives to improve women participation in STEM related fields.
- Organized conversations and initiatives with an emphasis on "raising the participation of women and underrepresented groups in STEM disciplines."
- Designed activities for primary school students that demonstrate the practical applications of STEM subjects.

**ADDITIONAL CREDENTIALS****TECHNICAL SKILLS**

Data Visualization • Predictive Analysis • Statistical Modeling • Training & Mentoring • Data Analytics • Data Mining • Quantitative Analysis • ML Algorithms • Deep learning • NLP.

**Programming & Frameworks:** Python, R, PyTorch, SPSS, Excel

**Packages:** Scikit-Learn, NumPy, SciPy, Pandas, NLTK, BeautifulSoup, Matplotlib, Statsmodels. etc.

**Office and Version control:** Microsoft Office (Word, Excel, Access, PowerPoint), GitHub, GitLab, Trello

**PUBLICATIONS**

**2022:** An online machine learning-based sensors clustering system for efficient and cost-effective environmental monitoring in controlled environment agriculture. ([ScienceDirect: link](#))

**2021:** A reinforcement learning approach for optimal placement of sensors in protected cultivation systems ([IEEE: link](#))

**2020:** Participatory Research for Low-resourced Machine Translation ([A Case Study in African Languages](#))

**CERTIFICATION**

“Introduction to SQL and Machine learning for Business” by DataCamp

“Python for Data Science” by WorldQuant University, virtual Internship at KPMG

“Machine Learning, Deep Learning, and Mathematics for Machine Learning” by Coursera.

**LANGUAGES**

English, Yoruba

**PROFESSIONAL AFFILIATION**

Member, Women in Machine Learning group (**WiML**)

Member, Black in AI community (**Black-in-AI**)

Member, the Masakhane community (**Masakhane**)

**REFEREES****Antoine BORDES**

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