

# Amina Mardiyah Rufai

✉ amina.rufai@idiap.ch

🌐 Personal Webpage

🐦 diyyah92

🌐 Amina Mardiyah Rufai

🔗 Scholar



## Employment History

- Mar 2023 – present    📌 **Research Intern**, Idiap Research Institute | Switzerland  
**Description:** *Internship after Master's degree*  
**Achievements:** Analysed a psychological speech and text dataset on behavioural interviews.  
- Fine-tuned a language model on text-classification to predict and classify storytelling versus non-storytelling elements in behavioural interviews.
- Jun 2022 – Aug 2022    📌 **Research Summer Intern**, École polytechnique fédérale de Lausanne (EPFL) | Switzerland  
**Description:** *Internship completed as part of my degree in Machine intelligence*  
**Achievements:** Analysed a large time series dataset from Twitter and fine-tuned a language model for Multilingual Covid sentiment analysis
- Nov 2021 – May 2022    📌 **Research/Solutions Analyst**, Data Scientist Network | Nigeria  
**Achievements:** - Designed, analysed, and engineered workflows using a combination of Deep Learning, Natural Language Processing, Automatic Speech Recognition, and Ontological Knowledge Graphs.  
- Designed and Developed a health-focused FAQ-Bot using DialogFlow and data insights from Audio data.
- Oct 2020 – Oct 2021    📌 **Technical Delivery Intern**, Data Scientist Network | Nigeria

## Education

- 2021 – 2022    📌 **M.Sc. Machine Intelligence, African Institute For Mathematical Sciences** | Senegal .  
Thesis title: *Statistical Machine Translation from English to Wolof*
- 2017 – 2019    📌 **M.Sc. Biomedical Engineering, University of Lagos** | Nigeria  
Thesis title: *Classification of Retinal Fundus images with application to Glaucoma diagnosis..*
- 2010 – 2015    📌 **B.Eng. Chemical Engineering, University of Benin** | Nigeria

## Research Publications

- 1 T. Adewumi, M. Adeyemi, A. Anuoluwapo, *et al.*, "Afriwoz: Corpus for exploiting cross-lingual transfer for dialogue generation in low-resource, african languages," in *2023 International Joint Conference on Neural Networks (IJCNN)*, 2023, pp. 1–8. 🌐 doi: 10.1109/IJCNN54540.2023.10191208.
- 2 T. Olatunji, T. Afonja, B. F. P. Dossou, *et al.*, "AfriNames: Most ASR Models "Butcher" African Names," in *Proc. INTERSPEECH 2023*, 2023, pp. 5077–5081. 🌐 doi: 10.21437/Interspeech.2023-2122.
- 3 O. Adekanmbi, W. Oyewusi, M. Salami, *et al.*, "Ai-powered understanding of family planning behavioural change using the fogg model," May 2022.
- 4 A. M. Rufai, A. A. Adebayo, D. Ajisafe, O. Adegboro, E. Oduntan, and T. Arulogun, *Nigerian pidgin++*, Poster Presentation, BlackinAI Affinity Workshop | NeurIPS, Dec. 2022.

## Skills

Core Programming Language	Python, Shell
Frameworks/Libraries	Pandas, Numpy, Matplotlib, Seaborn, Plotly, Pytorch, Scikitlearn, Git, HuggingFace Transformers , Linux CLI etc
Machine learning,Deep Learning	Supervised,Unsupervised Modelling, EDA, Deep Learning, NLP, Automatic Speech Recognition(ASR), Xgboost, Transformer models, Wav2vec2, Whisper, Pattern Recognition etc
Soft Skills	Team player, Attention-to-details, Analytical Skills, commitment to personal development
Languages	English(Native), French(Basic), Hausa(Basic)
Misc.	Writing, competitive hackathons, paper review for top conferences/workshops (EMNLP, ACL, BlackinAI)

## Miscellaneous Experience

### Awards and Achievements

2022	<b>Top 5</b> , Google ASR Research Hackathon
2021	<b>Silver Medal</b> , AIMS Microsoft Hackathon by Zindi Africa.
2019	<b>Gold Medal-Team Arete</b> , DataHack by Access Bank Nigeria
2018	<b>Best Display of 21st Century Competencies</b> , 3D Africa - HackForGood 2018 by Youth For Technology Foundation

### Volunteering Experience

2021, 2022	<b>Workshop Reviewer and Volunteer</b> , Black in AI   Black AIR
	<b>Research Projects Collaborations:</b> AfriWoz(2023), AfriNames(2023), African NLP Research Group (Masakhane)
2020-2022	<b>Lead Co-ordinator of Ladies in AI community</b> , Data Scientists Network(DSN)

## Referees

<b>Phillip N.Garner</b>	<i>Senior Research Scientist</i> , Idiap Research Institute   <a href="mailto:pgarner@idiap.ch">pgarner@idiap.ch</a>
<b>Martin Jaggi</b>	<i>Professor</i> , École polytechnique fédérale de Lausanne (EPFL)   <a href="mailto:jaggi.martin@epfl.ch">jaggi.martin@epfl.ch</a>
<b>Olubayo Adekanmbi</b>	<i>Lead Covener</i> , Data Scientist Network   <a href="mailto:olubayo@datasciencenigeria.ai">olubayo@datasciencenigeria.ai</a>