Sewade Olaolu Ogun

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💼 Experience

Research Experience

10.21–10.24 **Researcher PhD. Student**, *INRIA*
Centre d'INRIA à Université de Lorraine
Thesis: ASR data augmentation using diverse synthetic data
 My work involves developing and training state-of-the-art speech synthesis systems that can generate natural-sounding and diverse synthetic speech, while being trained on noisy ASR data.
 The natural-sounding synthetic speech data is then used for ASR data augmentation in low- and medium-resourced scenarios.
Thesis supervisors: Emmanuel Vincent (INRIA) and Vincent Colotte (LORIA)

10.20–10.21 **Research and Teaching Assistant**, *AIMS/AMMI*
African Institute for Mathematical Sciences, Senegal
 1-year teaching assistant for machine learning courses taught at the master's program. Also, I handled coding tutorials, assignments, and some extracurricular activities.
 Worked on weakly-supervised and self-supervised learning of speech representations for African (Kinyarwanda and Kabyle) languages as a research project.

03.21–08.21 **Machine Learning Research Engineer**, *Remote*
Ubenwa - Quebec, Canada
 Worked on detecting Asphyxia from baby cry using machine learning and/or acoustic biomarkers.
 Developed a cry activity detection tool for accurately detecting and segmenting baby cry signals from audio.

02.20–11.20 **NLP Engineer**, *Remote*
Proto - Vancouver, Canada
 Built a conversational AI tool to make COVID-19 information easily accessible in Nigeria, thus helping to reduce disinformation.
 Worked on text annotation for some Nigerian languages

Teaching Experience

01.23–06.23 Teaching assistant, speech corpus, NLP masters, University of Lorraine

12.20–10.21 Teaching Assistant, Various machine learning courses, African Masters in Machine Intelligence, AIMS, Senegal

06.21–12.21 Volunteer Instructor, Python Programming, TReND in Africa

🏛 Education

2021–2024 **Doctor of Philosopy**, *Computer Science*, Finishing
University of Lorraine, Nancy -

2019–2020 **MSc. Mathematical Sciences**, *Machine Intelligence*
African Institute for Mathematical Sciences (AIMS), Ghana - *Distinction*

2018–2019 **MSc. Electrical and Electronic Engineering**
University of Lagos (UNILAG), Nigeria - *Distinction*

2007–2012 **B.Tech (Hons) Electronic and Electrical Engineering**
Ladoke Akintola University of Technology (LAUTECH), Nigeria - *First Class*

📖 Papers and Publications

1 **S. Ogun**, A. Owodunni, T. Olatunji, E. Alese, B. Oladimeji, T. Afonja, K. Olaleye, N. Etori, T. Adewumi. 1000 African Voices: Advancing inclusive multi-speaker multi-accent speech synthesis. In Proc. Interspeech 2024. 2024.

2 T. Afonja, T. Olatunji, **S. Ogun**, N. Etori, A. Owodunni, M. Yekini. Performant ASR models for medical entities in accented speech. In Proc. Interspeech 2024. 2024.

3 G. Coiffier, **S. Ogun**, L. Valque, P. Trivedi. Think before loading (State of the art), 2024, 978-2-9591975-0-5

4 **S. Ogun**, V. Colotte, and E. Vincent. Stochastic pitch prediction improves the diversity and naturalness of speech in Glow-TTS. In Proc. Interspeech, 2023, pp. 4878–4882.

5 **S. Ogun**, V. Colotte, and E. Vincent. Can we use Common Voice to train a multi-speaker TTS system? In Proc. SLT. IEEE, 2023. pp. 900-905.

6 **S. Ogun**, A. Ndoye, Y. Adi, and M. Cisse. Towards a weakly-supervised learning paradigm for speech recognition. Unpublished. ⤤

✏ Articles/Talks

Articles How to create a speech dataset for ASR, TTS, and other speech tasks ⤤

From GRU to Transformer ⤤

You Don't Really Know Softmax ⤤

Other interesting articles on *my homepage* ⌂

🖥 Projects

Statistical testing of ASR models: A python library to perform statistical testing of ASR models using the bootstrap method. ⤤

Iterative vocoding: A python library to compute audio phase ⤤

Yoruba Speech Dataset: Over 3 hours of audio recordings of Yoruba text for ASR or TTS ⤤

>_ Technical Skills

1 Programming Languages: python, javascript, SQL
2 Deep Learning libraries: PyTorch, PyTorch-lightning, TensorFlow, Hugging Face
3 Research: Distributed training, Git, LaTeX
4 Languages: English & Yoruba (Native), Pidgin (Bi-lingual), French (Upper Intermediate), Spanish (Beginner)

🔧 Workshops/Summer Schools

2023 Rencontres des Jeunes Chercheurs en Parole 2023 - Grenoble, France
2022 The International School on Deep Learning, DeepLearn - Guimarães, Portugal
2020 Machine Learning Summer School, Max Planck Institute of Intelligent Systems, Germany - Virtual

🏆 Awards/Scholarships

2019 Masters Scholarship for AIMS/AMMI masters by Facebook and Google - Masters
2012 Best Graduating Student, Electrical Communications - Undergraduate
2009 - 2011 MTN Foundation Science and Technology Scholarship - Undergraduate
2006 1st Place, Lagos State Mathematics Olympiad - High school
2004 Bronze Medal, National Junior Science Olympiad - High school

👥 AI Communities

BioRAMP Research Group
Masakhane NLP Research Group
Black-In-AI