

Kayode Olaleye, PhD

My Contact

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Machine Learning Skills

- **Framework:** PyTorch, NumPy, OpenCV, scikit-learn, HuggingFace, PyTorch Lightning, AWS Sagemaker
- **Domains:** NLP, Speech processing, Deep Learning, Computer Vision
- **Language:** Python
- **Source control:** Git, GitHub, BitBucket
- **Environments:** Linux, Docker

Soft Skill

- Analytical
- Problem-solving
- Communication
- Attention to detail

Education Background

- Stellenbosch University, South Africa
PhD in Electronic Engineering
January 2019 - January 2023
- Stellenbosch University, South Africa
MSc in Mathematical Sciences
February 2017 - December 2018
- African Institute for Mathematical Sciences, Senegal
Structured Master in Mathematical Sciences
August 2015 - June 2016
- The Federal University of Technology, Akure
BTech in Industrial Mathematics
September 2007 - November 2012

About Me

I am a motivated researcher with expertise in machine learning algorithms for speech and language processing. I am excited about the opportunity to solve challenging real-world problems including those in biology. With strong foundational knowledge in machine learning, extensive experience in Python programming, and expertise in deep learning frameworks like PyTorch, I am confident in my ability to learn and contribute quickly. I possess a hardworking ethic, a collaborative spirit, and a passion for continuous learning.

Professional Experience

ByteFuse, South Africa | Machine Learning Engineer (Intern)

December 2022 – March 2023

- Building language identification models in a real low-resource setting
- Distilling knowledge from large language models

Stellenbosch University, South Africa | Teaching Assistant

July 2019 – December 2019

- Coordinated the computer programming in C practical sessions
- Tutored and assisted students throughout the duration of the module

Aerobotics, South Africa | Data Scientist (Intern)

February 2018 – May 2018

- Explored deep learning architectures to extract insights from aerial images of farmland

Firefly Media, Senegal | Junior Software Developer (Intern)

June 2016 – November 2016

- Built new functionalities into a mobile application for digital screen advertising on commercial buses
- Pre-processed and analysed digital screen advertising data

National Youth Service Corps, Nigeria | High School Teacher

March 2013 – March 2014

- Taught Mathematics to junior and senior high school students
- Revamped and coordinated extra-curricular activities

Research Publications

- **K. Olaleye**, D. Oneata, and H. Kamper. YFACC: A Yoruba speech-image dataset for cross-lingual keyword localisation through visual grounding (IEEE SLT 2023)
- **K. Olaleye**, D. Oneata, and H. Kamper. Keyword localisation in untranscribed speech using visually grounded speech models (IEEE Journal of Selected Topics in Signal Processing 2022)
- **K. Olaleye**, and H. Kamper. Attention-based keyword localisation in speech using visual grounding (Interspeech 2021)
- **K. Olaleye**, B. van Niekerk, and H. Kamper. Towards localisation of keywords in speech using weak supervision (Neural Information Processing 2020 workshop – Self-supervised learning for speech and audio processing)

Conferences and Courses Attended

- SLT 2023 (Qatar) – presented a poster for our paper at the main conference
- Interspeech 2021 (Czech Republic) – presented our paper at the main conference
- Online Software Engineer Bootcamp with HyperionDev (South Africa)
- NeurIPS 2020 (virtual) – presented our paper at the NeurIPS SAS workshop
- Machine Learning Summer School at the University College London (United Kingdom)
- Southern Africa Mathematical Sciences Association (SAMSA) Conference 2018 at BIUST (Botswana)
- Deep Learning Indaba 2018 at Stellenbosch University (South Africa)
- Deep Learning IndabaX 2018 at the University of Cape Town (South Africa) – a one-day Machine Learning event that I co-organized
- Data Science Workshop 2017 in Cape Town (South Africa)
- SKA SETI skills development Workshop 2017 in Cape Town (South Africa) – a Data Science workshop
- UCT Data Science Workshop 2017 in Cape Town (South Africa)
- NEF Global Gathering 2016 – a global science and technology forum in Dakar (Senegal)

Honours and Awards

- Google PhD Fellowship 2019 – 2021
- DAAD In-region Scholarship 2019 – 2022
- MIH Media Lab Bursary 2019
- Poster prize (\$1000 credit on Google Cloud Platform) at the Deep Learning Indaba 2018
- SAMSA 2018 Certificate of Participation
- AIMS –NEI bursary 2017 – 2018
- Africa Code Week 2017 Certificate of Participation
- AIMS–NEI Scholarship 2015 – 2016
- Ekiti State Government Scholarship 2010 – 2011