

NEURAL INFORMATION
PROCESSING SYSTEMS

Black in AI increases the presence and inclusion of Black people in the field of AI by creating space for sharing ideas, fostering collaborations, mentorship and advocacy. www.blackinai.org.

Black in AI Workshop

co-located with
NeurIPS 2022

Black in AI Accepted Papers - Joint Affinity Poster Session

Mon 28 Nov - 4:30 PM (CST Timezone)

Predictive Multiplicity in Probabilistic Classification
Jamelle Watson-Daniels (Harvard University); David Parkes (Harvard University); Berk Ustun (UCSD)*

Towards trustworthy AI-based algorithms in healthcare: A case of medical images
*Mbangula Lameck ML Amugongo (Technischen Universität München)**

Improving neural machine translation for low-resource languages using related language resources
Atnafu Lambebo Tonja (Instituto Politécnico Nacional (IPN), Centro de Investigación en Computación (CIC)); Olga Kolesnikova (Instituto Politécnico Nacional (IPN), Centro de Investigación en Computación (CIC))*

Unsupervised convolutional neural networks-based 3D reconstruction from 2D medical images guided by generative models
*Jean-Rassaire Fouefack (Isen Yncréa Ouest and LaTIM INSERM U1101)**

Machine Learning Model for Early Detection of Irish Potato Diseases Based on Crop Imagery Data
*Hudson C Laizer (Mbeya University of Science and Technology)**

Accurate Machine-Learning-Based classification of Leukemia from Blood Smear Images
Simon Mekit (Ethiopian Academy of Sciences); Kokeb Dese (School of Biomedical Engineering, Jimma University)*

Towards Effective Speech-based AI in the Classroom: The Case of AAE-Speaking Children
Alexander Johnson (UCLA); Abeer Alwan (UCLA); Alison Bailey (UCLA); Robin Morris (Georgia State University); Julie Washington (University of California, Irvine); Mari Ostendorf (University of Washington)*

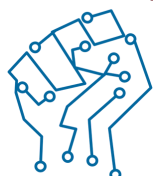
OCR System for the Recognition of Ethiopic Real-Life Documents
*Tesfahunegn M Mengistu (Bahir Dar University)**

Assisted Learning of New Languages via User Defined and Phoneme Parameterized Pronunciations
Amanuel N Mersha (Addis Ababa Institute Technology); Stephen Wu (University of Texas Health Science Center at Houston)*

Ensemble of CNN Models for Tuberculosis Diagnosis
*Mustapha O Oloko-oba (University of KwaZulu-Natal, Durban)**

DynamicViT: Faster Vision Transformer
Amanuel N Mersha (Addis Ababa Institute Technology); Samuel A Assefa (J.P. Morgan AI)*

Towards trustworthy AI-based algorithms in healthcare: A case of medical images
*Mbangula Lameck ML Amugongo (Technischen Universität München)**



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YOSM: Yorùbá Sentiment Corpus for Movie Reviews

Iyanuoluwa Shode (Montclair State University)*; David Ifeoluwa Adelani (DeepMind); Anna Feldman (Montclair State University)

Interactive Video Saliency Prediction: The Stacked ConvLSTM Approach

Natnael A Wondimu (Addis Ababa University)*; Cedric Buche (ENIB); Ubbo Visser (University of Miami)

NigerianPidgin++: Towards End-to-End training of an Automatic Speech recognition system for Nigerian Pidgin Language

Amina Mardiyah Rufai (African Institute for Mathematical Sciences)*; Abeeb A Afolabi (HARBIDEL TECHNOLOGIES); Daniel Ajisafe (African Institute for Mathematical Sciences); Oluwabukola Adegboro (African Institute for Mathematical Sciences); Odunayo E Oduntan (Chrisland University Abeokuta, Nigeria); O.T. Arulogun (Ladoke Akintola University of Technology, Ogbomosho)

Convolutional Neural Network deep learning model for early detection of streak virus and lethal necrosis in maize: A case of Northern-highlands, Tanzania

Flavia Stephen Mayo (The Nelson Mandela African Institution of Science and Technology)*; Neema Mduma (The Nelson Mandela Institution of Science and Technology)

Development of a Model to Classify Skin Diseases using Ensemble Machine Learning Techniques

Oluwayemisi Jaiyeoba*; Temitope Owolabi; Emeka Ogbuju - (Federal University Lokoja)

Studying Bias in GANs through the Lens of Race

Vongani H Maluleke (University of California, Berkeley)*; Neerja Thakkar (University of California, Berkeley); Tim Brooks (UC Berkeley); Ethan Weber (UC Berkeley); Trevor Darrell (UC Berkeley); Alexei A Efros (UC Berkeley); Angjoo Kanazawa (University of California Berkeley); Devin Guillory (UC Berkeley)

Assessing Schistosomiasis transmission dynamics with heterogeneous intermediate host: A modeling study

Chidozie CW Chukwu (Wake Forest University)*

Set2Set Transformer: Towards End-to-End 3D Object Detection from Point Clouds

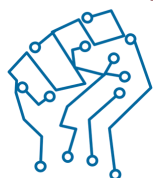
Yeabsira E Tessema (Korenti Craft Technologies)*; Abel Mekonnen (Korenti Craft Technologies); Michael Desta (Korenti Craft Technologies); Selameab Demilew (Korenti Craft Technologies)

Dissecting the Genre of Nigerian Music with Machine Learning Models

Sakinat O Folorunso (Olabisi Onabanjo university)*

Impact of Feedback Type on Explanatory Interactive Learning

Misgina Tsighe Hagos (University College Dublin)*; Kathleen Curran (UCD); Brian Mac Namee (University College Dublin)



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Image Segmentation of Radio Interferometric Images Using Deep Neural Networks

Sydil R Kupa (Rhodes University)*; Marcellin M Atemkeng Teufack (Rhodes University); Kshitij Thorat (University of Pretoria); Oleg Smirnov (SKASA, Rhodes University)

Prediction of the ability and motivation to adopt Reproductive Health Behavioural change using anonymized customer center audio data

Olubayo Adekanmbi (Data Science Nigeria)*; Toyin Adekanmbi (Data Science Nigeria)

Crowdsourcing-Powered Machine Learning Application for Fake Message Validation and Localized Instant Response Platform in Disaster Management

Olubayo Adekanmbi (Data Science Nigeria)*

Building Identification In Aerial Imagery using Deep learning

Proscovia Nakiranda (Stellenbosch University)*; Trienko Grobler (Stellenbosch University)

Privacy-Preserving Online Mirror Descent With Single-Sided Trust for Federated Learning

Olusola Odeyomi (North Carolina A & T State University)*; Gergely Zaruba (University of North Texas)

Segmentation of Tuta Absoluta's Damage on Tomato Plants: A Computer Vision Approach

Loyani K Loyani (The Nelson Mandela African Institution of Science and Technology)*

Pre-operative glioma grade prediction from multi-modal MR images based on an ensemble of deep learning models

Abdela A Mossa (University of Gondar and Emerald International College, Ethiopia)*; Ulus Cevik (Cukurova University); Muhammed Hissien Bilal (Jigjiga University)

Ethical Challenges Facing Data-Driven Policing: A Review

CHIBUZOR JOSEPH okocha (university of benin)*

End-to-End Multilingual Automatic Speech Recognition for Less-Resourced Ethiopian Languages

Martha Yifiru Tachbelie (Addis Ababa University)*

Cocoa Beans Classification Using Enhanced Image Feature Extraction Techniques and A Regularized Artificial Neural Network Model

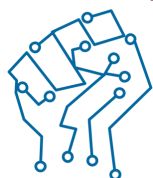
Eric Opoku (Savana Signatures)*; Rose-Mary Owusua Mensah Gyening (Kwame Nkrumah University of Science and Technology); Obed Appiah (UENR)

Separate and Extract a Mixed Audio Using Deep Learning

Wesagn D Chemma (MoF)*

Imitation from Observation With Bootstrapped Contrastive Learning

Medric Sonwa (University of Montréal)*; Johanna Hansen (McGill University); Eugene Bellilovsky (Mila)



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Comparison of Classification Algorithms for Predicting Completeness of Measles Vaccination

Peter O Ohue (University of Ibadan)*; Oluyemi Okunlola (University of Medical Sciences Ondo)

Deep Learning-Based Multi-Vehicle Tracking Model with Speed Estimator for the MLK Smart Corridor in Downtown Chattanooga, TN

Yasir Hassan (Center for Urban Informataics and Progress)*

INTEGRATING SOIL NUTRIENTS AND LOCATION WEATHER FOR CROP YIELD PREDICTION

Emeka Ogbuju (Federal University Lokoja)*; Nkechi Dekanu (Federal University Lokoja); Ebenezer Oladipe (Federal University Lokoja)

Towards Afrocentric AI

Ife Adebara (University of British Columbia)*

Evaluation of Convolutional Neural Network and Gradient Boosting Methods for Bug Severity Classification

Aminu Ahmad (Central South University, Changsha)*

Re-QGAN: an optimized adversarial quantum circuit learning framework

Anais Sandra Nguemto Guiawa (University of Tennessee Knoxville)*

COVID-19 Radio ASR: Analyzing community voices from radio broadcasts for public health planning, response and policy

Jonathan Mukiibi (Makerere University)*

COVID-19 Radio ASR: Analyzing community voices from radio broadcasts for public health planning, response and policy

Jonathan Mukiibi (Makerere University)*

Enabling Integration and Interaction for Decentralized Artificial Intelligence in Airline Disruption Management

Kolawole Ogunsina (N/A)*

Predicting the Level of Anemia among Ethiopian Pregnant Women using Homogeneous Ensemble Machine Learning Algorithm and Deploy on Cloud-based Framework

Belayneh E Endalamaw (University of Gondar)*; Tesfamariam Abuhay (University of Gondar); Dawit Shibabaw (University of Gondar Ethiopia)

Detecting gender bias in pre-trained language models for zero-shot text classification

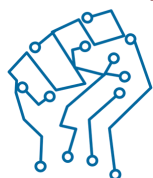
Nile E Dixon (Northcentral University)*

Learning to Mitigate AI Collusion on E-Commerce Platforms

Eric Mibuari (Harvard University)*; Gianluca Brero (Brown University); David Parkes (Harvard University); Nicolas Lepore (Harvard University)

Temporal Cycle Consistency: for a Video-to-Video Translation

Kirubel Abebe Senbeto (Woldia University)*



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An instance segmentation approach for automatic insulator defect detection

*ELDAD Antwi-Bekoe (AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND ENTREPRENEURIAL DEVELOPMENT (AAMUSTED))**

Unsupervised annotation of differences between genomic datasets

*Eman Asfaw (iCog-Labs)**

Using Epidemic Multi-agent Synthetic Datasets for Predictions in Communication Networks: An LSTM Perspective

Chukwunonso H Nwokoye (Nnamdi Azikiwe University, Awka); Chukwuemeka Etodike (NnamdiAzikiwe University, Awka); Queen Nkechi Chigbue (Nnamdi Azikiwe University)*

A Survey of Ensemble Learning: Concepts, Algorithms, Applications, and Prospects

*Ibomoiyi Domor Mienye (University of Johannesburg)**

Simulating Health Time Series by Data Augmentation

*Louis A Gomez (Stevens Institute of technology); Adedolapo A Toye (Stevens Institute of Technology); Robert Hum (Mcgill University); Samantha Kleinberg (Stevens Institute of Technology)**

Crop Recommendation for Precision Agriculture using Machine Learning techniques - Towards a More Sustainable Agriculture

*Damilola Adegoke (Data Scientists Network)**

Gender Bias Evaluation in Luganda-English Machine Translation

*Eric Peter Wairagala (Makerere University)**

Learning by Injection: Attention Embedded Recurrent Neural Network for Amharic Text-image Recognition

Tariku A Gelaw (Ethiopian Biotechnology Institute); Birhanu Hailu Belay (Bahir Dar Institute of Technology); WELEKIROS GEBREHIWOT GEBRESLASIE (AI Institute)*

Enhancing Epidemiological Surveillance Systems Using Dynamic Modeling: A Scoping Review

*ADEGBOYEGA MR ADEBAYO (NATIONAL OPEN UNIVERSITY NIGERIA)**

The Effects of Acoustic Features of Speech on the Performance of an Automatic Speaker Recognition

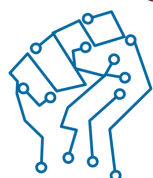
*Tumisho B Mokgonyane (University of South Africa)**

Speech Emotion Recognition

Joy Ojochide Bello (Federal University Lokoja); Taiwo Kolajo (Department of Computer Science, Federal University Lokoja, Kogi State, Nigeria)*

Mobile-PDC: High-Accuracy Plant Disease Classification for Mobile Devices

Samiha Nalwooga (Stockholm University); Henry Mutegeki (Makerere University)*



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MKA-Net: Multi-Kernel Attention Conv-Network

Abenezer G Girma (North Carolina A&T State University);
Nana Kankam B Gyimah (North Carolina Agricultural and
Technical State University)*

Surface Defect Detection: A comparative analysis of Deep Learning-based Frameworks

*Nana Kankam B Gyimah (North Carolina Agricultural and
Technical State University)*; Abenezer G Girma (North
Carolina A&T State University)*

Stronger is not better: Better Augmentations in Contrastive Learning for Medical Image Segmentation

Azeez Idris (Iowa State University); Abdurahman Ali
Mohammed (Iowa State University); Samuel Fanijo (Iowa
State University)*

Deepware: Imaging performance counters with deep learning to detect ransomware

Gaddisa Olani Ganfure (Dire Dawa University); Yuan-Hao
Chang (Academia Sinica)*

DEEP LEARNING BASED AFAAN OROMO HATE SPEECH DETECTION

*Gaddisa Olani Ganfure (Dire Dawa University)**

Domain-Specific Lexicon-Based Sentiment Analysis using Contextual Shifter Patterns

*Shamsuddeen Mr Muhammad (Bayero University, Kano)**

FacEDiM: A Face Embedding Distribution Model for Few-Shot Biometric Authentication of Cattle

Meshia Cédric Oveneke (Fit-For-Purpose Technologies);
Rucha Vaishampayan (Fit-For-Purpose Technologies);
Deogratias Lukamba Nsadisa (Fit-For-Purpose Technologies);
Jenny Ambukiyenyi Onya (Fit-For-Purpose Technologies)*