David Ifeoluwa ADELANI

PERSONAL DATA

PLACE OF BIRTH: Abeokuta, Nigeria Saarbrücken, Germany ADDRESS: didelani@lsv.uni-saarland.de FMAII.

Work Experience

Senior Research Fellow (DeepMind Academic Fellow) SEP 2022 - PRESENT

Department of Computer Science, University College London, UK.

Supported by DeepMind

PhD Researcher (Group: Spoken Language Systems Group) JAN 2019 - SEP 2022

Department of Language Science & Technology, Saarland University

Supported by the EU H2020 COMPRISE project

Research Intern (Group: Echizen's Content Security Lab) JAN 2019 - APR 2019

National Institute of Informatics (NII)

Internship on Adversarial Text Generation with Prof. Isao Echizen

Research Assistant (Group: Networked Systems Research Group) MAR 2017 - DEC 2018

Max Planck Institute for Software System (MPI-SWS)

Supported by MPI-SWS Pre-Doctoral Scholarship for 22 months for working on topic

modeling and causal inference in social media with Dr. Przemyslaw Grabowicz

AUG 2016- MAR 2017 Research Assistant (Group: Intelligent User Interfaces)

German Research Centre for Artificial Intelligence (DFKI)

Deep learning and Case-Based Reasoning for Energy Power Forecast [10 hours/week]

Computer Scientist II (Lead of Database Group) JUL 2012 - APR 2015

Federal Ministry of Communication Technology, Nigeria

APR 2011 - JUL 2012 Professional Service Consultant (Junior)

NCR (NIGERIA) PLC.

EDUCATION

Preparatory Phase (2015-2018) and Dissertation Phase of Doctoral Studies IAN 2015 -SEP 2022

Spoken Language Systems Group, Saarland Informatics Campus, Germany

Thesis: "Natural Language Processing for African Languages"

ADVISOR: Prof. Dr. Dietrich Klakow GPA: 1.6 (Best 1.0, Worst 5.0)

IUL 2013 -Master of Science in Computer Science

African University of Science and Technology (AUST), Abuja, Nigeria DEC 2014

Thesis: "A DEVS-Based ANN Training and Prediction Platform" | Advisor: M.K. TRAORE

GPA: 3.91/4

OCT 2006 -Bachelor of Science in Computer Science

OCT 2010 Federal University of Agriculture, Abeokuta, Nigeria

Thesis: "Securing E-voting with EC-ELGAMAL" | Advisor: A.S. Sodiya

GPA: 4.42/5

RESEARCH INTERESTS

Natural Language Processing (NLP) NLP for low-resource languages NLP for social good Privacy-preserving machine learning Computational social science

TEACHING EXPERIENCE

TEACHING ASSISTANT: Neural Networks: Implementation and Application - Winter Semester 17/18

Saarland University (with Prof. Dr. Dietrich Klakow)

Statistical Natural Language Processing - Summer 2017 TEACHING ASSISTANT:

Saarland University (with Prof. Dr. Dietrich Klakow)

OTHER RESEARCH PROJECTS

Named Entity Recognition and Parts of Speech for African Languages MAY 2021 - DEC 2021.

(A Masakhane Project supported by Lacuna Fund)

Detecting Events in Social Media using Non-parametric Bayesian Methods OCT 2016 - JAN 2017.

(with Dr. Przemyslaw Grabowicz @ MPI-SWS)

MAY 2016 - SEP 2016. Neural Networks for Semantic Role Prediction

(with Prof. Dr. Vera Demberg)

AWARDS. SCHOLARSHIPS AND CERTIFICATES

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JUN. 2020	AI4D Fellowship to create English-Yorùbá Corpus for Machine Translation
OCT. 2019	Attended the PRAIRIE AI summer school (fully funded) in Paris (October 3 - 5)
MAY. 2019	Invited to Google's 3rd European NLP Summit in Zurich (June 24 - 26)
MAY. 2019	Best Poster Presentation Award at the Web Conference (formely WWW) 2019
OCT. 2018	PyTorch Scholarship Challenge 2018/2019 from Facebook and Udacity
JUN. 2018	NII International Internship Program, Japan (February - April 2019)
MAR. 2017	MPI-SWS Pre-Doctoral Studies Scholarship (ended December 2018)
APR. 2015	Saarbrücken Graduate School of Computer Science Full Scholarship (ended Mar 2017)
Jul. 2013	Nelson Mandela Institute (NMI) Full Scholarship for MSc in Computer Science (\$22,500)

Best Paper Award at the AfricaNLP Workshop @EACL 2021 for the MasakhaNER paper

DEC. 2012 Oracle Database 11g Certified Professional (OCP)

Aug. 2012 Oracle Database 11g Certified Associate (OCA)

COMPUTER SKILLS

APR. 2021

Python, JAVA, R, HTML, JavaScript, and PHP Programming:

Frameworks: Pandas, Statsmodel, Gensim, TensorFlow, Keras, PyTorch, and scikit-learn

Databases: Oracle Database 11g, Microsoft SQL Server, MySQL, and Access

VOLUNTEER SERVICE

The Web Conference 2018 (sub-reviewer), AfricaNLP Workshop (2020, 2021) Reviewer for

EACL SRW 2021, WeaSUL @ICLR 2021, NAACL 2021, ARR 2021 -

Mentor at Data Science Nigeria

Active Member of Masakhane NLP for African languages leading the Lacuna NER project

FAVOURITE QUOTE

Anything you find your hands doing, do it with all your might

PUBLICATIONS

- 1. Jesujoba Oluwadara Alabi*, David Ifeoluwa Adelani*, Marius Mosbach, and Dietrich Klakow. Adapting Pre-trained Language Models to African Languages via Multilingual Adaptive Fine-Tuning. In COLING (Also accepted at AfricanLP Workshop at ICLR 2022), 2022
- 2. David Adelani Ernie Chang, Jesujoba Alabi and Vera Demberg. Few-Shot Pidgin Text Adaptation via Contrastive Fine-Tuning. In COLING (Also accepted at AfricaNLP Workshop at ICLR 2022), 2022
- 3. Josh Meyer, David Ifeoluwa Adelani, Edresson Casanova, Alp Öktem, Daniel Whitenack Julian Weber, Salomon Kabongo, Elizabeth Salesky, Iroro Orife, Colin Leong, Perez Ogayo, Chris Emezue, Jonathan Mukiibi, Salomey Osei, Apelete Agbolo, Victor Akinode, Bernard Opoku, Samuel Olanrewaju, Jesujoba Alabi, and Shamsuddeen Muhammad. BibleTTS: a large, high-fidelity, multilingual, and uniquely African speech corpus. In Interspeech, 2022
- 4. Ali Davody, David Ifeoluwa Adelani, Thomas Kleinbauer, and Dietrich Klakow. TOKEN is a MASK: Few-shot Named Entity Recognition with Pre-trained Language Models. In *In Proceedings of the 25th International Conference on Text, Speech and Dialogue (TSD)*, 2022
- 5. David Ifeoluwa Adelani, Jesujoba Oluwadara Alabi, Angela Fan, Julia Kreutzer, Xiaoyu Shen, Machel Reid, Dana Ruiter, Dietrich Klakow, Peter Nabende, Ernie Chang, Tajuddeen Gwadabe, Freshia Sackey, Bonaventure F. P. Dossou, Chris Chinenye Emezue, Colin Leong, Michael Beukman, Shamsuddeen Hassan Muhammad, Guyo Dub Jarso, Oreen Yousuf, Andre Niyongabo Rubungo, Gilles HACHEME, Eric Peter Wairagala, Muhammad Umair Nasir, Benjamin Ayoade Ajibade, Oluwaseyi Ajayi Ajayi, Yvonne Wambui Gitau, Jade Abbott, Mohamed Ahmed, Millicent Ochieng, Anuoluwapo Aremu, Perez Ogayo, Jonathan Mukiibi, Fatoumata Ouoba Kabore, Godson Koffi KALIPE, Derguene Mbaye, Allahsera Auguste Tapo, Victoire Memdjokam Koagne, Edwin Munkoh-Buabeng, Valencia Wagner, Idris Abdulmumin, and Ayodele Awokoya. A Few Thousand Translations Go a Long Way! Leveraging Pre-trained Models for African News Translation. In NAACL-HIT, 2022
- 6. Miaoran Zhang, Marius Mosbach, David Ifeoluwa Adelani, Michael A. Hedderich, and Dietrich Klakow. MCSE: Multimodal Contrastive Learning of Sentence Embeddings. In NAACL-HLT, 2022
- 7. Shamsuddeen Hassan Muhammad, David Ifeoluwa Adelani, Sebastian Ruder, Ibrahim Said Ahmad, Idris Abdulmumin, Bello Shehu Bello, Monojit Choudhury, Chris Chinenye Emezue, Saheed Salahudeen Abdullahi, Anuoluwapo Aremu, Alipio Jeorge, and Pavel Brazdil. NaijaSenti: A Nigerian Twitter Sentiment Corpus for Multilingual Sentiment Analysis. In *LREC*, 2022
- 8. En-Shiun Annie Lee, Sarubi Thillainathan, Shravan Nayak, Surangika Ranathunga, David Ifeoluwa Adelani, and Ruisi Su and Arya D. McCarthy. Pre-Trained Multilingual Sequence-to-Sequence Models: A Hope for Low-Resource Language Translation? In *Findings of ACL*, 2022
- 9. Dawei Zhu, Michael A. Hedderich, Fangzhou Zhai, David Ifeoluwa Adelani, and Dietrich Klakow. Task-Adaptive Pre-Training for Boosting Learning With Noisy Labels: A Study on Text Classification for African Languages. In Workshop on Insights from Negative Results in NLP 2022 at ACL (Also accepted at AfricaNLP Workshop at ICLR 2022), 2022
- 10. Iyanuoluwa Shode, David Ifeoluwa Adelani, and Anna Feldman. YOSM: A new Yorùbá Sentiment Corpus for Movie reviews. In *AfricaNLP 2022 Workshop at ICLR*, 2022

- 11. David Ifeoluwa Adelani, Miaoran Zhang, Xiaoyu Shen, Ali Davody, Thomas Kleinbauer, and Dietrich Klakow. Preventing author profiling through zero-shot multilingual backtranslation. In *EMNLP*. 2021
- 12. David I. Adelani and Dana Ruiter and Jesujoba O. Alabi and Damilola Adebonojo and Adesina Ayeni and Mofe Adeyemi and Ayodele Awokoya and Cristina España-Bonet . The Effect of Domain and Diacritics in Yorùbá-English Neural Machine Translation. In *MT Summit*, 2021
- 13. David Ifeoluwa Adelani, Jade Abbott, Graham Neubig, Daniel D'souza, Julia Kreutzer, Constantine Lignos, Chester Palen-Michel, Happy Buzaaba, Shruti Rijhwani, Sebastian Ruder, Stephen Mayhew, Israel Abebe Azime, Shamsuddeen Muhammad, Chris Chinenye Emezue, Joyce Nakatumba-Nabende, Perez Ogayo, Anuoluwapo Aremu, Catherine Gitau, Derguene Mbaye, Jesujoba Alabi, Seid Muhie Yimam, Tajuddeen Gwadabe, Ignatius Ezeani, Rubungo Andre Niyongabo, Jonathan Mukiibi, Verrah Otiende, Iroro Orife, Davis David, Samba Ngom, Tosin Adewumi, Paul Rayson, Mofetoluwa Adeyemi, Gerald Muriuki, Emmanuel Anebi, Chiamaka Chukwuneke, Nkiruka Odu, Eric Peter Wairagala, Samuel Oyerinde, Clemencia Siro, Tobius Saul Bateesa, Temilola Oloyede, Yvonne Wambui, Victor Akinode, Deborah Nabagereka, Maurice Katusiime, Ayodele Awokoya, Mouhamadane MBOUP, Dibora Gebreyohannes, Henok Tilaye, Kelechi Nwaike, Degaga Wolde, Abdoulaye Faye, Blessing Sibanda, Orevaoghene Ahia, Bonaventure F. P. Dossou, Kelechi Ogueji, Thierno Ibrahima DIOP, Abdoulaye Diallo, Adewale Akinfaderin, Tendai Marengereke, and Salomey Osei. MasakhaNER: Named Entity Recognition for African Languages . In *TACL*, 2021 (Also accepted at AfricaNLP Workshop @ EACL 2021)
- 14. David I. Adelani, Dana Ruiter, Jesujoba O. Alabi, Damilola Adebonojo, Adesina Ayeni, Mofe Adeyemi, Ayodele Awokoya, and Cristina España-Bonet. MENYO-20k: A Multi-domain English-Yorùbá Corpus for Machine Translation and Domain Adaptation. In *AfricaNLP Workshop @EACL*, 2021
- 15. Kathleen Siminyu, Godson Kalipe, Davor Orlic, Jade Abbott, Vukosi Marivate, Sackey Freshia, Prateek Sibal, Bhanu Neupane, David I. Adelani, Amelia Taylor, Jamiil Toure ALI, Kevin Degila, Momboladji Balogoun, Thierno Ibrahima DIOP, Davis David, Chayma Fourati, Hatem Haddad, and Malek Naski. Al4D African Language Program. In AfricaNLP Workshop at EACL, 2021
- 16. Michael A. Hedderich, David Ifeoluwa Adelani, Dawei Zhu, Jesujoba O. Alabi, Udia Markus, and Dietrich Klakow. Transfer learning and distant supervision for multilingual transformer models: A study on african languages. In *EMNLP*, 2020
- 17. David Ifeoluwa Adelani, Ryota Kobayashi, Ingmar Weber, and Przemyslaw A. Grabowicz. Estimating community feedback effect on topic choice in social media with predictive modeling. In *EPJ Data Science*, 2020 (Also accepted at IC2S2 2021 as Extended Abstract)
- 18. David Ifeoluwa Adelani, Ali Davody, Thomas Kleinbauer, and Dietrich Klakow. Privacy guarantees for de-identifying text transformations. In *Interspeech*, 2020
- 19. Aleena Thomas, David Ifeoluwa Adelani, Ali Davody, Aditya Mogadala, and Dietrich Klakow. Investigating the impact of pre-trained word embeddings on memorization in neural networks. In *In Proceedings of the 23rd International Conference on Text, Speech and Dialogue (TSD)*, 2020
- 20. David Ifeoluwa Adelani*, Michael A. Hedderich*, Dawei Zhu*, Esther van den Berg, and Dietrich Klakow. Distant supervision and noisy label learning for low resource named entity recognition: A study on Hausa and Yorùbá, Practical ML for Developing Countries Workshop at ICLR 2020
- 21. Iroro Orife, David I. Adelani, Timi Fasubaa, Victor Williamson, Wuraola Fisayo Oyewusi, Olamilekan Wahab, and Kola Tubosun. Improving Yorùbá diacritic restoration, AfircaNLP Workshop at ICLR 2020

- 22. Ernie Chang, David Ifeoluwa Adelani, Xiaoyu Shen, and Vera Demberg. Unsupervised pidgin text generation by pivoting english data and self-training, AfircaNLP Workshop at ICLR 2020
- 23. Jesujoba O. Alabi, Kwabena Amponsah-Kaakyire, David I. Adelani, and Cristina España-Bonet. Massive vs. curated word embeddings for low-resourced languages. the case of Yorùbá and Twi. In 12th International Conference on Language Resources and Evaluation (LREC), 2020
- 24. David Ifeoluwa Adelani, Haotian Mai, Fuming Fang, Huy H. Nguyen, Junichi Yamagishi, and Isao Echizen. Generating sentiment-preserving fake online reviews using neural language models and their human- and machine-based detection. In *34th International Conference on Advanced Information Networking and Applications (AINA)*, 2020
- 25. Zijian Wang, Scott Hale, David Ifeoluwa Adelani, Przemyslaw Grabowicz, Timo Hartman, Fabian Flöck, and David Jurgens. Demographic inference and representative population estimates from multilingual social media data. In *The Web conference*. ACM, 2019 (Also accepted at IC2S2 2019 as Extended Abstract)
- 26. David Ifeoluwa Adelani, Fabian Flöck, Przemyslaw Grabowicz, Scott Hale, Timo Hartmann, and David Jurgens. Agendas on social media: Inferring policy attention from non-representative data. International Conference on Computational Social Science (IC2S2) 2018. Extended Abstract
- 27. David Ifeoluwa Adelani and Mamadou Kaba Traore. Enhancing the reusability and interoperability of artificial neural networks with DEVS modeling and simulation. *International Journal of Modeling, Simulation, and Scientific Computing*, 7(3), 2015
- 28. Adesina Simon Sodiya, SA Onashoga, and DI Adelani. A secure e-voting architecture. In *Information Technology: New Generations (ITNG), 2011 Eighth International Conference on*, pages 342–347. IEEE, 2011