

# H PPY BUZ B

Postdoctoral Researcher Princeton University

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## RESEARCH INTEREST

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My current research focuses on developing technologies for African languages. In the past, I spent time investigating the use of natural-gradient Bayesian methods to improve uncertainty estimation in pre-trained language models and how to make them robust and adaptable with a keen interest in low resource African languages.

## EMPLOYMENT

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<b>Postdoctoral Research Associate</b> Princeton University	From September 2023 <i>Princeton NJ, USA</i>
<b>Postdoctoral Researcher, Approximate Bayesian Inference Team</b> RIKEN Center for Advanced Intelligence Project	From June 2022 - August 2023 <i>Tokyo, Japan</i>
<b>Ph.D Student, Systems and Information Engineering</b> University of Tsukuba	April 2018 - March 2022 <i>Tsukuba, Japan</i>

## EDUCATION

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<b>Ph.D Computer Science</b> , University of Tsukuba Supervisor: Prof. Toshiyuki Amagasa.	April 2018 - March 2022
<b>Master of Regional Development</b> , Toyo University Supervisor: Prof. Nakabasami Chieko.	Sept 2015 – Sept 2017
<b>Bachelor of Applied Physics</b> , UR College of Science and Technology (Former KIST) Thesis Supervisor: Prof. Pogrebnoi Alexander.	Jan 2008 - Mar 2012

## LIST OF PUBLICATIONS

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- O. Ogundepo, T. Gwadabe, C. Rivera, J. Clark, S. Ruder, D. Adelani, B. Dossou, A. DIOP, C. Sikasote, G. Hacheme, **H. Buzaaba**, I. Ezeani, R. Mabuya, S. Osei, C. Emezue, A. Kahira, S. Muhammad, A. Oladipo, A. Owodunni, A. Tonja, I. Shode, A. Asai, T. Ajayi, C. Siro, S. Arthur, M. Adeyemi, O. Ahia, A. Anuoluwapo, O. Awosan, C. Chukwuneke, B. Opoku, A. Ayodele, V. Otiende, C. Mwase, B. Sinkala, A. Rubungo, D. Ajisafe, E. Onwuegbuzia, H. Mbow, E. Niyomutabazi, E. Mukonde, F. Lawan, I. Ahmad, J. Alabi, M. Namukombo, M. Chinedu, M. Phiri, N. Putini, N. Mngoma, P. Amuok, R. Iro, S. Adhiambo. AfriQA: Cross-lingual Open-Retrieval Question Answering for African Languages. *In the International Conference on Empirical Methods in Natural Language Processing EMNLP2023*).
- C. Bamba, D. Adelani, P. Nabende, J. Alabi, T. Sindane, **H. Buzaaba**, S. Muhammad, C. Emezue, P. Ogayo, A. Aremu, C. Gitau, D. Mbaye, J. Mukiibi, B. Sibanda, B. F. P. Dossou, A. Bukula, R. Mabuya, A. Tapo, E. Munkoh-Buabeng, V. Koagne, F. Kabore, A. Taylor, G. Kalipe, T. Macucwa, V. Marivate, T. Gwadabe, E. Mboning, I. Onyenwe, G. Atindogbe, T. Adelani, I. Akinade, O. Samuel, M. Nahimana, T. Musabeyezu, E. Niyomutabazi, E. Chimhenga, K. Gotosa, P. Mizha, A. Agbolo, S. Traore, C. Uchechukwu, A. M. Abdullahi, D. Klakow. MasakhaPOS: Part-of-Speech Tagging for Typologically Diverse African languages. *In the 61st Annual Meeting of the Association for Computational Linguistics ACL2023*).
- T. Adewumi, M. Adeyemi, A. Anuoluwapo, B. Peters, **H. Buzaaba**, O. Samuel, A. M. Rufai, B. Ajibade, T. Gwadabe, M. K. Traore, T. Ajayi, S. Muhammad, A. Baruwa, P. Owoicho, T. Ogunremi, P. Ngigi, O. Ahia, R. Nasir, F. Liwicki, M. Liwicki. AfriWOZ: Corpus for Exploiting Cross-Lingual Transferability for Generation of Dialogues in Low-Resource, African Languages. *In the International Joint Conference on Neural Networks IJCNN 2023*).
- D. Adelani, G. Neubig, S. Ruder, S. Rijhwani, M. Beukman, C. Palen-Michel, C. Lignos, J. Alabi, S. Muhammad, P. Nabende, C. M. B. Dione, A. Bukula, R. Mabuya, B. F. P. Dossou, B. Sibanda, **H. Buzaaba**, J. Mukiibi,

- G. Kalipe, D. Mbaye, A. Taylor, F. Kabore, C. C. Emezue, A. Aremu, P. Ogayo, C. Gitau, E. Munkoh-Buabeng, V. M. Koagne, A. A. Tapo, T. Macucwa, V. Marivate, M. T. Elvis, T. Gwadabe, T. Adewumi, O. Ahia, J. Nakatumba-Nabende, N. L. Mokono, I. Ezeani, C. Chukwuneke, M. O. Adeyemi, G. Q. Hacheme, I. Abdulmumin, O. Ogundepo, O. Yousuf, T. Moteu, D. Klakow. MasakhaNER 2.0: Africa-centric Transfer Learning for Named Entity Recognition. *In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, EMNLP), 2022.*
5. D. Adelani, J. Alabi, A. Fan, J. Kreutzer, X. Shen, M. Reid, D. Ruitter, D. Klakow, P. Nabende, E. Chang, T. Gwadabe, F. Sackey, B. F. P. Dossou, C. Emezue, C. Leong, M. Beukman, S. Muhammad, G. Jarso, O. Yousuf, A. N. Rubungo, G. Hacheme, E. P. Wairagala, M. U. Nasir, B. Ajibade, T. Ajayi, Y. Gitau, J. Abbott, M. Ahmed, M. Ochieng, A. Aremu, P. Ogayo, J. Mukiibi, F. O. Kabore, G. Kalipe, D. Mbaye, A. A. Tapo, V. M. Koagne, E. Munkoh-Buabeng, V. Wagner, I. Abdulmumin, A. Awokoya, **H. Buzaaba**, B. Sibanda, A. Bukula, S. Manthalu. A Few Thousand Translations Go a Long Way! Leveraging Pre-trained Models for African News Translation. *In Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics NAACL), 2022.*
  6. **H. Buzaaba**, T. Amagasa. A scheme for efficient question answering with low dimension reconstructed embeddings. *In The 23rd international conference on information integration and web intelligence iiWAS) 2021.*
  7. D. I. Adelani, J. Abbott, G. Neubig, D. D'souza, J. Kreutzer, C. Lignos, C. Palen-Michel, **H. Buzaaba**, S. Rijhwani, S. Ruder, S. Mayhew, I. A. Azime, S. H. Muhammad, C. C. Emezue, J. Nakatumba-Nabende, P. Ogayo, A. Anuluwapo, C. Gitau, D. Mbaye, J. Alabi, S. M. Yimam, T. R. Gwadabe, I. Ezeani, R. A. Niyongabo, J. Mukiibi, V. Otiende, I. Orife, D. David, S. Ngom, T. Adewumi, P. Rayson, M. Adeyemi, G. Muriuki, E. Anebi, C. Chukwuneke, N. Odu, E. P. Wairagala, S. Oyerinde, C. Siro, T. S. Bateesa, T. Oloyede, Y. Wambui, V. Akinode, D. Nabagereka, M. Katusiime, A. Awokoya, M. MBOUP, D. Gebreyohannes, H. Tilaye, K. Nwaike, D. Wolde, A. Faye, B. Sibanda, O. Ahia, B. F. P. Dossou, K. Ogueji, T. I. DIOP, A. Diallo, A. Akinfaderin, T. Marengereke, S. Osei. MasakhaNER: Named Entity Recognition for African Languages. *Transactions of the Association for Computational Linguistics 2021) 9: 1116–1131.*
  8. **H. Buzaaba**, T. Amagasa. Question Answering Over Knowledge Base: A Scheme for Integrating Subject and the Identified Relation to Answer Simple Questions. *SN COMPUT. SCI. 2, 25 2021).*
  9. **H. Buzaaba**, T. Amagasa. A modular approach for efficient simple question answering over knowledge base. *In the 30th international conference on Database and expert systems applications DEXA), 2019.*

## TEACHING

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<b>Data Engineering 1 for master's students</b>	Oct – Dec 2019
Teaching Assistant University of Tsukuba	<i>Tsukuba, Japan</i>
<b>Database systems for undergraduate students</b>	Oct – Dec 2018
Teaching Assistant University of Tsukuba	<i>Tsukuba, Japan</i>

## REVIEWING

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<b>2024</b>	LREC
<b>2023</b>	NeurIPS
<b>2022</b>	NeurIPS, ACML
<b>2021</b>	ICLR

## OTHER ACTIVITIES

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<b>2024</b>	Co-organizing the ICLR2023 workshop on AfricaNLP.
<b>2023</b>	Co-organizing the ICLR2023 workshop on AfricaNLP.

## PRIZES AWARDS

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1. 2019: **Merit Award**, Students award for best presenter at the 11th Forum on Data Engineering and Information Management DEIM 2019.
2. 2017: **Mastuo Award**, an award for best master thesis of Regional Development Studies, by Toyo University.
3. 2015: **Abe-Initiative Scholarship**, a fully funded masters scholarship awarded to young Africans by the Japanese government.