

Michael ADJEISAH

PhD | Machine Learning, NLP & GenAI



Gender: Male

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Professional Membership/Certification

Member of the British Computer Society (BCS)

Fellow of the HEA

Professional Experience

Nov 2023 – Present	Researcher	Sony Interactive Entertainment (SIE), London – UK
	<ul style="list-style-type: none">• Conduct advanced research leveraging LLMs for Non-player Character (NPC) dialogue.• Design, fine-tune, and deploy LMs to automate and optimise complex workflows.• Collaborate with experienced engineers and data scientists to address complex challenges• Develop, train, and evaluate ML algorithms to a variety of complex problems in NLP• Implement solutions for sentiment analysis, document processing, and conversational AI.• Scale AI models seamlessly using Docker frameworks.	
Oct 2023 – Present	CfACTs Research Fellow	Bournemouth University (BU) – UK
	<ul style="list-style-type: none">• Conduct cutting-edge research in natural language processing (NLP), LLMs, and ML.• Collaborate with colleagues and industry partners to advance research objectives.• Facilitate knowledge transfer activities between academia and industry.• Apply research skills to address industry challenges and develop innovative solutions.• Present research findings to stakeholders and industry partners• Contribute to grant proposals and research project management.• Meet students individually to discuss research progress.	
Sep 2021 – Aug 2023	Post-doctoral Fellow	Zhejiang Normal University (ZJNU), Jinhua – China
	<ul style="list-style-type: none">• Analysed, interpreted, and documented research findings for review.• Compared actual and expected results and suggested solutions to correct the deviations.• Evaluated existing research modelling techniques and recommended improvements to ensure quality and productivity.• Presented research findings at conferences and published in peer-reviewed journals.• Assisted in the preparation of proposals and report writing.• Planned teaching, including lectures, seminars/tutorials, and learning materials.• Met students individually to discuss research progress.	
Oct 2015 – Jan 2016	Front-end Developer Intern	AppInChina, Beijing – China
	<ul style="list-style-type: none">• Worked closely with the Back End developer to implement the company's website, ensuring strong optimization and functionality.• Monitored browser technical performance and web server.• Worked on projects including web layout enhancements, website enhancements, and database-backup.	

Education

Aug 2016 – Mar 2021	Ph.D. in Computer Science Donghua University, Shanghai – China Advisor: Dr. Guohua Liu (Professor)
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	Thesis Title: “ <i>English and Chinese-Twi Parallel-Aligned Bible Corpus for Encoder-Decoder Based Machine Translation</i> ”
Aug 2013 – Jun 2016	M.Sc. in Computer Applied Technology Lanzhou University, Lanzhou – China Advisor: Dr. Lian Li (Professor) Thesis Title: “ <i>A Study Base on Depth Data Calibration and Skeleton Tracking for Natural User Interface</i> ”
Aug 2007 – Jun 2011	Bachelor of Education University of Education, Winneba – Ghana Advisor: Dr. Isaac Opoku Mensah

Technical Specialties

- Extensive experience in developing and applying ML and NLP solutions in both industry and academic contexts.
- Proficient in statistical methodologies and algorithms, including classification, regression, clustering, feature engineering, deep learning, network analysis, and hypothesis testing.
- Advanced skills in programming languages such as Python, Java, and JavaScript.
- Familiar with AI development tools and libraries like TensorFlow, PyTorch, LangChain, and LlamaIndex.
- Expertise in handling natural language data and building text-based products using both classic and state-of-the-art NLP techniques (e.g., text mining, word embeddings, transformer-based models).
- Experienced with LLMs and LLM-based workflows/architectures.
- Experience with distributed deep learning frameworks like DeepSpeed and Ray.
- Committed to ethical AI development, including bias, fairness, and data ethics.
- Strong ability to explain AI concepts to non-experts and collaborate with cross-functional teams.

Selected Publication(s)

Scientific Journal(s)- Selected

1. **Michael Adjeisah**, X. Zhu, H. Xu, and T. A. Ayall, "Graph Contrastive Multiview Learning: A Pre-training Framework for Graph Classification," *Journal of Knowledge-Based Systems*, Volume 299. **(Q1, IF: 7.2)**
2. **Michael Adjeisah**, X. Zhu, H. Xu, and T. A. Ayall. "Towards data augmentation in graph neural network: An overview and evaluation." *Computer Science Review* 47 (2023): 100527. **(Q1, IF: 13.3)**
3. M. Kamyab, G. Liu, A. Rasool, and **Michael Adjeisah**, "ACR-SA: attention-based deep model through two-channel CNN and Bi-RNN for sentiment analysis." *PeerJ Comput. Sci.*, vol. 8, p. e877, 2022. **(Q3, IF: 2.41)**
4. M. Kamyab, G. Liu, and **Michael Adjeisah**, "Attention-Based CNN and Bi-LSTM Model Based on TF-IDF and GloVe Word Embedding for Sentiment Analysis," *Applied Sciences*, vol. 11, no. 23, Dec. 2021. **(Q2, IF: 2.83)**
5. Raji, R., **Michael Adjeisah**, Miao, X. and Wan, A. "A Novel Respiration Pattern Biometric Prediction System based on Artificial Neural Network," *Sensor Review*, vol. 40, no. 1, pp. 8–16, Feb. 2020. **(Q4, IF: 1.74)**
6. **Michael Adjeisah**, G. Liu, R. N. Nortey, and J. Song, "Pseudo Text Injection and Advance Filtering Low-resource Corpus for Neural Machine Translation," *Journal of Computational Intelligence and Neuroscience*, vol. 2021, pp. 1–10, Apr. 2021. (SCI Indexed: N/A, Q4, IF: N/A)

Conference Proceeding(s) - Selected

1. **Michael Adjeisah**, G. Liu, R. N. Nortey, J. Song, K. O. Lampitey and F. N. Frimpong, "Twi Corpus: A Massively Twi-to-Handful Languages Parallel Bible Corpus," 2020 IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking (ISPA/BDCLOUD/SocialCom/SustainCom), pp. 1043–1049. **(EI)**
2. **Michael Adjeisah**, G. Liu, Nyabuga D. O., and Nortey R. N., “Multi-Sensor Information Fusion and Machine Learning for High Accuracy Rate of Mechanical Pedometer in Human Activity Recognition,” 2019 IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking (ISPA/BDCLOUD/SocialCom/SustainCom), 2019, pp. 1064–1070. **(EI)**
3. K. Kashif, Y. Wu, J. Zhang, and **Michael Adjeisah**, “Consonant Phoneme based Extreme Learning Machine (ELM) Recognition model for Foreign Accent Identification,” *Proceedings of the World Symposium on Software Engineering (WSSE 2019)*, Wuhan, 2019. pp. 68–72. **(EI)**
4. **Michael Adjeisah**, Z. Chen, G. Liu, and Y. Yi, “A New Approach for Tracking Human Body Movements by the Kinect Sensor,” 4th International Conference on Smart and Sustainable City (ICSSC 2017), Shanghai, China. **(EI)**

Preprint(s)

1. **Michael Adjeisah**, Asamoah KO, Yeboah MA, King RR, Achaab GF, Adjei K. Adinkra Symbol Recognition using Classical Machine Learning and Deep Learning. arXiv preprint arXiv:2311.15728.

Recent Submission(s)

1. **[First author]**, "The Interplay and Balance Between Text and Speech Embeddings for Emotion Recognition in Conversations" Submitted to EMNLP 2025
2. **[First author]**, "Digital Twin-based Management Practices: A Survey and Roadmap" Submitted to Computer Science Review.
3. **[Second author]**, "Efficient Information Filtering in Contrastive Learning for Temporal Knowledge Graph Reasoning" Submitted to ECML-PKDD 2025.
4. **[First author]**, "ChatNPC: Towards Immersive Video Game Experience through Naturalistic and Emotive Dialogue Agent" Submitted to ACL 2025.

Invited Presentation

1. "Enhancing Supervisor-Student Relationships," The National Union of Ghana Students (NUGS), Shanghai Chapter Webinar. Virtual, April 2023.
2. "Twi Corpus: A Massively Twi-to-Handful Languages Parallel Bible Corpus," IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking. Virtual, November 2020.
3. "Multi-Sensor Information Fusion and Machine Learning for High Accuracy Rate of Mechanical Pedometer in Human Activity Recognition," IEEE Intl Conf on Parallel & Distributed Processing with Applications, Big Data & Cloud Computing, Sustainable Computing & Communications, Social Computing & Networking. Xiamen, China, December 2019.

Supervising and Mentoring Activities

Nov 2023 – Present	Doctoral Student Co-Supervision BU – UK <ul style="list-style-type: none"> • Supervise doctoral students in NLP and Knowledge Graph. • Provide mentorship and guidance to students in their research pursuits. • Facilitate regular meetings with doctoral candidates to discuss research progress, methodology, and challenges. • Assist students in a literature review, experimental design, data analysis, and manuscript preparation. • Provide constructive feedback on research proposals, thesis drafts, and presentations. • Support students in developing academic and professional skills, including publication strategies and conference presentations. • Foster a collaborative and supportive environment to enhance students' academic and research achievements.
Dec 2021 – Jun 2023	Master's Thesis Co-Supervision ZJNU, Jinhua – China <ul style="list-style-type: none"> • Guidance on Research Design and Methodology • Regular Supervision Meetings and Progress Monitoring • Review and Feedback on Written Work • Support with Data Analysis and Interpretation • Assist the student in preparing for thesis submission and defence (viva voce), including mock presentations and addressing potential questions

Professional Development/Training

May 2024 – May 2027	Supervisory Development Training for New Supervisors	BU – UK
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Teaching

2023, Semester II	Network and Information Security	3 Credit hours	ZJNU
2022, Semester II	Big Data Technology and Application	2.5 Credit hours	ZJNU
2022, Semester I	Introduction to Deep Learning	2.5 credit hours	ZJNU