Yusuf Brima

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04 Helma Kono Jaiama Nimikoro, 232, Koidu, Sierra Leone

EDUCATION AND TRAINING

01/07/2018 – 28/08/2020 – Department of Computer Science and Engineering Science Complex University of Dhaka, Dhaka – 1000, Dhaka, Bangladesh

MASTER OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING - University of Dhaka

https://www.cse.du.ac.bd/

03/09/2012 - 03/02/2017 - Azzolini Highway, Makeni, Sierra Leone

BACHELOR OF SCIENCE IN COMPUTER SCIENCE - University of Makeni

http://unimak.edu.sl/

01/08/2020 - 09/07/2021 - AIMS Centre Remera Kigali, Kigali, Rwanda

MASTER OF SCIENCE IN MATHEMATICAL SCIENCES - African Institute for Mathematical Sciences (AIMS)

https://aims.ac.rw/

WORK EXPERIENCE

01/02/2018 – 31/07/2018 – Freetown, Sierra Leone **LECTURER** – LIMKOKWING UNIVERSITY OF CREATIVE TECHNOLOGY

Taught undergraduate Computer Science courses in Principles of Programming Languages and Introduction to Computing

01/03/2017 - 31/07/2018 - Makeni, Sierra Leone

COLLEGE REGISTRAR - AFRICAN ACCENTS INTERNATIONAL INSTITUTE OF COMPUTER TECHNOLOGY

Provided oversight of enrolment, retention and transfer of students in and out of the institution, co-ordinated with the Finance and Exams Officers in managing operations of the Institution, directed and coordinated college registration activities by consulting with other officials to devise registration schedules and procedures, analyzed statistical data on registration for administrative use in formulating policies, directed the preparation of statistical reports on educational activities for government and educational agencies and interprets registration policies to faculty and students. Directed compilation of information, such as class schedules and graduation requirements, for publication in school bulletins and catalogues.

01/03/2017 - 31/07/2018 - Makeni, Sierra Leone

RESEARCH TEACHING ASSISTANT - UNIVERSITY OF MAKENI

Taught undergraduate Computer Science courses in Principles of Programming Languages, Introduction to Computing, Web Programming, Relational Database Systems theory and practice. Conducted research into emerging technologies and their socio-economic ramifications on the varied dimensions of human civilization. Supervised final year students in their project and thesis development process(es).

LANGUAGE SKILLS

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROJECTS

12/2019 - 03/2020

Deep Transfer Learning for Multi-class Brain MRI Classification, MSc Thesis

In this research, we adopted a Deep Residual Convolutional Neural Network (ResNet50) architecture for the experiments amongst other discriminative learning techniques to train the model. Using the novel dataset and two publicly available MRI brain datasets, this proposed approach attained a classification accuracy of 86.40% on the proposed dataset, 93.80% on the Harvard Whole Brain Atlas, and 97.05% accuracy on the School of Biomedical Engineering dataset. Our experimental results significantly demonstrate our proposed framework for Transfer Learning is a potential and effective approach for brain tumor multi- classification tasks. The paper is in submission to the IEEE/ACM Transactions on Computational Biology and Bioinformatics journal.

09/2016 - 02/2017

Automated Recruitment System, BSc. Final year project

Career placement and recommendation engine is written in PHP as the Server-Side Scripting Language; Hyper Text Markup Language 5, JavaScript, JQuery and its ancillary dependencies, Twitter Bootstrap Framework, CSS 3.0, Asynchronous JavaScript and XML, Google Data Visualization Library as the client-side scripting technologies and Apache as the Webserver from the Apache Foundation.

VOLUNTEERING

01/04/2015 - 30/06/2017

Acting Head of Department (Information Technology Department), Destiny College of Management Theology and Technology

Makeni

Leadership and Management: responsible and accountable for setting and advancing the academic strategy of the Department in line with the Institution's strategic plans and direction, developed and sustained appropriate structures for management, consultation, decision-making and communication with staff and students, promoted and represented the Institution both internally and externally, Knowledge Transfer: created and exploited new opportunities for knowledge transfer activity in order to secure additional income streams and new areas of teaching and/or research.

01/02/2017 - CURRENT

Deputy Director of academic affairs, African Accents International Institute (AAII)

Makeni

Operationalised student enrollment, management and transfer procedures, Developed and controlled stu- dent record management system, produced a bi-annual report on: Student mobility in and out of the Institution; rate of enrolment, retention, and migration of students, Student-led evaluation of teach- ing staff including action-oriented recommendations, coordinated class schedules with room assignments for optimum use of buildings and equipment, prepared student transcripts, certificates amongst other academic-related documents.

ADDITIONAL EDUCATION

08/2020 - 08/2020

Oxford Machine Learning Summer School, UK

Bayesian ML, Computer Vision, Natural Language Processing, Reinforcement Learning, Causal ML, Topological ML, and Transfer Learning.

08/2020 - 08/2020

Machine Learning Summer School-INDO, Indonesia

Machine Learning Fundamentals, TensorFlow, Convolutional Neural Network, Advanced Topics in Equivariance and Inductive Biases, Bayesian Machine Learning, Information Theoretic Objectives, and Robust Generalization, Computational Morphology, Reinforcement Learning, Probabilistic Generative Models, VAEs and Flows, Deep Learning for NLP, Graph Neural Nets, Transfer Learning for NLP, Multilingual NLP, Super-resolution and its Application to Computer Vision Tasks.

05/2020 - 06/2020

Imperial College London, UK

Linear Algebra, Multivariate Calculus, and Principal Component Analysis.

09/2020 - 09/2020

MathWorks Training Service, MOOC

Deep Learning for Image Recognition.

Using Pre-trained Networks, Managing Collections of Data, and Performing Transfer Learning.

09/2020 - 10/2020

LinkedIn Learning, MOOC

Introduction to Machine Learning: Supervised, Semi-supervised, Unsupervised and Reinforcement Learn-ing, popular Machine Learning Algorithms (K Nearest Neighbor, Decision Tree, K-mean Clustering, Regression, Naive Bayes).

10/2016 - 10/2016

On-Campus Internship Programme (OCIP), University of Makeni, Sierra Leone

Installation and configuration of software, computer networking, troubleshooting, and maintenance.

CONFERENCES AND SEMINARS

06/2018 - 07/2018 - UNESCO-ICHEI, China

Seminar on ICT in Higher Education Innovation for African Countries,

Attained knowledge in the role of informatization of higher education to improve learning outcomes. The seminar entailed hands-on training in Big Data management with Apache Spark and predictive analytics with Machine Learning techniques to improve learning outcomes.

06/2015 - 07/2015 - University of Makeni, Sierra Leone

Academic Research on the Web

Gained knowledge on carrying out academic research on the web: search engine usage techniques, finding suitable journals, workshops, conferences for research publication, bibliography management, attribution, blogging amongst other things.

SOCIAL AND POLITICAL ACTIVITIES

01/09/2014 - 30/06/2015

Student President (University of Makeni Computer Science Society)

Makeni, Sierra Leone

Provided executive leadership into student affairs and activities including: STEM outreach, computer science education communication through radio and television programmes, debates and public lectures and industry tour.

01/09/2013 - 30/06/2014

Student Vice President (University of Makeni Computer Science Society)

Makeni, Sierra Leone

Provided executive leadership into student affairs and activities ranging from representation in seminars, workshops, and conferences to extracurricular activities.

DIGITAL SKILLS

Scientific programming in Python | Latex Software | C, C++ Programming | Machine Learning and Deep Learning frameworks: Tensorflow, Keras, PyTorch | Data Science, Data Analytics, Data Visualization | SQL/MYSQL | GIT (GitHub) | Python libraries (NumPy, Pandas, Keras, SciKit-Learn, TensorFlow, Matplotlib, Seaborn) | Web Development: HTML 5, CSS, JavaScript | Climate Data Operators | NetCDF Operators | Microsoft Office

HONOURS AND AWARDS

01/08/2020

African Institute of Mathematical Sciences (AIMS) Fellowship - Mastercard Foundation Scholarship

01/07/2018

Queen Elizabeth Commonwealth Fellowship For Low-and-Middle-Income Countries – The Association of Commonwealth Universities (ACU)

01/09/2013

Undergraduate Scholarship National Merit - Government of Sierra Leone

NETWORKS AND MEMBERSHIPS

02/02/2019 - CURRENT

IEEE Student Member

28/08/2020 - CURRENT

The Association of Commonwealth Universities Alumni

02/07/2017 - CURRENT

University of Dhaka Computer Science and Engineering Society

Bangladesh

02/09/2012 - CURRENT

University of Makeni Computer Science Society

Sierra Leone

RECOMMENDATIONS

Professor Mosaddek Hossain Kamal – Thesis Supervisor – <u>tushar@cse.du.ac.bd</u> Professor of Computer Science, and Engineering, University of Dhaka.

Dr. Marcellin Atemkeng – Thesis Supervisor – m.atemkeng@ru.ac.za
Lecturer: Applied Mathematics and Machine Learning; Coordinator: Rhodes Al Research Group (RAIRG); Rhodes University, South Africa.

Professor Upama Kabir – Thesis Co-supervisor – <u>upama@cse.du.ac.bd</u> Professor of Computer Science, and Engineering, University of Dhaka.

Lakshamana Namamula Rao – Former Head of Department – <u>lakshmanarao@ipam.edu.sl</u> Lecturer, Institute of Public Administration, and Management (IPAM), Sierra Leone.