Fatima Isiaka Mailafiya

I am a Data/Computer Science Lecturer with more than 14 years experience of lecturing both graduate and undergraduate students and also worked as a Computer science teaching assistant (Demonstrator) at the University of Manchester, United Kingdom, as part of work experience abroad. In addition, I am a skilled worker with strong leadership and relationship-building skills. Meticulous in my work with ability for excellency at juggling multiple tasks and working under pressure. Broad skills/industry experience includes programming with Matlab, HTML/CSS, Java and R.

Computer Science Dept., Nasarawa State Univerity
PMB 1022
Keffi, Nigeria
🕮 *+ (234) 903 060 1166*
☎ *+2 (349) 039 922-221*
✉ *fatima.isiaka@outlook.com*
🖰 *fatimaisaq.wixsite.com/fatimaim*
in *fatimaisaq*
ORCID ID: *0000-0002-6455-776X*

"Make a change, it counts"

Education

2015 – 2017   **Ph.D Computer Science**, *Sheffield Hallam University, United Kingdom*, Sheffield, *Pass Unclassified*.

Undertook a project in Machine Learning with Big-Data and a novel approach to Modelling Human Computer Interaction. Thesis title: *Modelling Stress Level, Based on Physiological Responses to Webpages* More details at `http://shura.shu.ac.uk/16551/1/Fatima$%20Isiaka%20modelling%20stress%20levels%20%28VoR%29.pdf$`

2006– 2009   **M.Sc. Computer Science**, *University of Agriculture*, Makurdi, *Distinction (4.54)*.

Investigated works on Free Space Optics Technology (FOT), collection of relevant existing data for (FOT) and wrote a project and Thesis Titled: *Simulation of Free Space Optics Technology*, which lead to advanced project management and modification of parts in FOT

2005– 2006   **PGD Computer Science**, *University of Agriculture*, Makurdi, Nigeria, *Distinction (4.65)*.

in Data Science, Modeling and Simulation. Thesis title: *Design of Timetabling System for Secondary Schools*, for six thousand students and more than a hundred staff and their duties

1996 – 2002   **B.Tech (Hons) Mathematics**, *Abubakar Tafawa Balewa University,*, Bauchi, Nigeria., *Second Class (3.45)*.

Undertook Statistical/Mathematical and Computer Science courses for 4 years with an additional year for Industrial training/attachment

Current Research

title	*A Control System for Detecting Emotions on Visual Interphase, with Colors and Emoticons*
supervisors	Dr. Kassim Mwitondi, Dr Adamu I. Mailafiya
description	The dynamic contents of a visual interphase induce implicit reaction in a user, this leads to changes in physiological processes of the user which is referred to as stress. Our goal is to use data mining processes to model and produce a system that represent the mechanical interactions of the body and eye movement behaviour. It involves collection of huge amount of data upto six thousand both from web and local data sources. This is also a follow up of my Doctorate research work on modelling of stress levels. The process consists of the following modules: (1) a hypothesis generator for suggesting possible structural changes that result from the direct interaction with visual stimulus (2) an information source for responding to operator querying about users? interactive and physiological processes, and (3) a continuous system simulator for simulating and illustrating physiological reactions during interaction.

Work Experience

2009 – 2017   **Lecturer Computer Science**, *Department of Computer Science, Faculty of Natural and Applied Sciences,* NSUK *Nasarawa State University, Keffi, Nigeria. (Full-time position.)*, Keffi.

I taught both postgraduate and undergraduate students, Data mining, Database management systems, Introduction to Programming languages. (Python, R, MATLAb, JAVA, , and Visual Basic), Introduction to Operating Systems, File processing/management and Software analysis part of which is graphics desgin using Computer Aided Design and we have developed Database systems and applications relating to different area of industry and academic sectors.

2013 – 2015   **Teaching Assistant (Demonstrator)**, *University of Manchester, United Kingdom (Part-time)*, Manchester.

Demonstrate and supervised students in Data mining, Mathematical Modeling and Simulation, User Experience and Perception, Development of new processes for website evaluation which resulted in marked performance improvement and I have helped developed a Database Interphase Model for Simulation of Integrative Physiological Response to Dynamic contents on webpages, this involved collection and importing of large datasets for online and local sources into our model for analysis.

2017-2018   **Head of Department**, *Computer Science Department. Nasarawa State University, Keffi (NSUK)*, Keffi.

Oversees departmental activities and curriculum.

2005-2009   **Manager.**, *Centre for Software Engineering Makurdi, Nigeria.*, Makurdi.

Controls departmental activities.

2004-2006   **Software Developer (Programmer)**, *Centre for Software Engineering Makurdi, Nigeria (ITECH)*, Makurdi.

I have helped in the development of a Timetable system for Secondary Schools using Java integrated with Matlab and R, an Databse Management for Online Medical Record System and also Simulation of Free Space Optics Technology with Matlab/R signal processing and modeling toolbox and statistical packages with "ggplot2" for 3D and modern data visualization, "car" and "plotly", which resulted in marked performance and reduction of clashes for over 5000 students and a 100 staff and their duties.

Awards

2012   Petroleum Trust Development Fund (PTDF) Scholarship, Nigeria, for Doctorate Research Program in the United Kingdom. *One of Best Two Students from my state capital.*

2016   UNICAF Scholarship for Masters in Business Administration program research in University of Wales.*Current qualification award*

Languages

English	Excellent	*Very flexible*
Hausa	Very well	*Averagely Spoken*
Igala	Average	*Parcially*

Computer skills

Python	For design of data mining tools/apps	Python 3D	For Database web apps

Matlab/R	For design of data mining tools/apps and Bio-applications	Javascript	For website and web apps
R	Data mining applications	Unity 4	I design mini games for Children

Interests

Reading	I read lots of books, novels and publications
Programming	I like to spend my little to write codes and submodules at my leisure
Site Seeing	I like to visit place, especially places I am yet to see

References

Dr Kassim Mwitondi	**Sheffield Hallam University**, *Department of Computing, Sheffield Hallam University, Sheffield, United Kingdom.* S1 1WB, *k.mwitondi@shu.ac.uk, +44-114-225-6914*
Dr Simon Harper	**University of Manchester**, *School of Computer Science* , University of Manchester, United Kingdom., M13 9PL. *simon.harper@manchester.ac.uk, +441612750599*
Prof Oliver Osuagwu	**Center for Software Engineering, Owerri**, *Nigeria +2348037101792*, Makurdi, Nigeria, drosuagwu@yahoo.com.

Publications

[1] Fatima Isiaka Adamu M. Ibrahima. Computer aided medical diagnosis for the treatment of sexually transmitted disease (gonorrhea). *Advances in Science, Technology and Engineering Systems (ASTES)*, 2(2):30–35, 2017.

[2] Adamu Mailafiya Ibrahim Fatima Isiaka. Implementation of wireless media and satellite networks. *West African Journal of Industrial & Academic Research*, 2(2):125–140, 2012.

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[4] Adamu M Ibrahim, Brandon Bennett, and Fatima Isiaka. The optimisation of bayesian classifier in predictive spatial modelling for secondary mineral deposits. *Procedia Computer Science*, 61:478–485, 2015.

[5] Fatima Isiaka. Outlier detection and popularization of multivariate regression model on hci-human physiological response. *International Journal of Current Research and Academic Review*, 3(8):374–385, 2015.

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[8] Fatima Isiaka, Adamu Ibrahim, and Kassim Mwitondi. Spontaneous extrapolation and detection of stress level based on human computer interaction and physiological response. *International Journal of Simulation–Systems, Science & Technology*, 17(26), 2016.

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Computer Science Department, Nasarawa State University,
Keffi, Nigeria PMB 1022
Phone: (+234) 903-060-1166
Email: fatima.isiaka@outlook.com

Recruitment Officer
Faculty of Science
University of British Columbia
Canada

Dear Sir/Madam,

I am a PhD graduate of Sheffield Hallam University and would like to apply for your recently advertised Lecturer: UBC Master of Data Science program which I saw today on the glassdoor website.The high ambition I maintain for my undergraduate and graduate students is reflected in the standards that I set for myself during my study and in mentoring of students abroad.

I also have the necessary technical/coding skills, experience, specialist in big-data and also knowledge needed to provide a nurturing classroom and academy environment that helps my students to develop as learners. You can definitely rely on me to develop strong relationships with the students and give them the resources, time, and support needed to deliver an exceptional experience,.

I worked with the Nasarawa State University of Nigeria, in a role where I am involved in heading, planning and delivering lectures of the highest standards so that real learning takes place and students make genuine progress in their studies. And has part of my duties, I look for ways that can improve and challenge poor performance, something I do by providing regular commentary, feedback and assessment to those that need it in the courses they take part in.

At the moment, I am keen to become a key player in a cutting-edge institution like yours, that pursues both equity and diversity essential to academic excellence in everything it does, and also fosters the inclusion of voices that have been underrepresented or discouraged. Please find attached my CV for more details of my career and also future potential. If you have any questions or would like more information about my qualifications and reasons for applying, please feel free to call me at +2349030601166 or email me at fatima.isiaka@outlook.com. Thank you for your time and consideration and I look forward to hearing from you.

Sincerely yours

Dr. Fatima Isiaka Mailafiya

Previous Research Experience

My previous research aims to address the question, 'How can user generated data be utilized in modelling Human Computer Interaction and physiological response to online contents?' The research has helped to answer this question by measuring users physiological response using specialised tools in an ergonomics laboratory to quantify the process by capturing huge amount of data and predict behaviour/stress level. However, I am further interested in exploring other ventures and teach at the same time laern how this can be utilize to predict abnormal activities.

Details of my previous research work (thesis) are available in my webpage (fatimaisaq.wixsite.com/fatimaim). However I would like to highlight my interests in user abnormal behaviour and activities detection to counteract cyber threats, this could involve extensive coding in Python, Matlab, probably integrated with Java and produce large database systems. The measurement capabilities of this method is novel and are just beginning to be understood, and I would most certainly continue to eagerly pursue and develop this measurement technique. I am also interested in knowing and also predicting what captures users attention working with huge database developed with "MYSql" as part of human factors.

Research Goals

Capturing big data on surfing and browsing is important in many ways. For instance, biomedical personnel regularly use computer simulations to monitor and control the bahaviour of patients which is an example of beneficiaries of such huge user generated data and human factors. And also, with the success of online marketing increasingly requiring a good understanding of customers' online behaviour, there is need also to understand customer activity and filter out suspected threats and abnormal transactions. The law enforcement agents have for long been using these detection methods - which typically rely on huge data from human factors. The main aim here is the prediction of human' behaviour based on large data from eye movement behaviour study which would rely heavily on subjective than the distributional assumptions.

My expertise in experimental measurement provide me with a solid foundation of large data generation based on human factors, which I would build new theoretical explanations. Novel approaches in measurement technique and application are needed to understand these human factors to tackle the underlying issue. Therefore new experimental measurements at a foundational level are required to support the assumptions made in many fields e.g. sciences and cyber security measures. I will build off my thesis and doctoral experiences to further understand certain using validation quality measurements and quantifications.

I also have the ability to attract contacts to funding sponsors based on my previous experience and the importance of recruiting and mentoring graduate and undergraduate students to make my research plans a success. I plan to quickly develop positive working and mentoring relationships to enhance success.

Previous Experience in Teaching

Having an advanced knowledge in Data Science from abroad has made me more confident and broaden my skills and knowledge about teaching and supervision of students and their development. I particularly took part in a session as a demonstrator (teaching assistant) in the University of Manchester, which has given me not only a wonderful experience but also the the confidence and assurance that what you deliver to students is nothing but the best, both in their academic and emotional development. Studying sciences and programming aspects in English at my university made me acquire skills and knowledge which are important for teaching for any national curriculum. The psychology aspect of my study was covered during my training at the National Teacher Training Institute and also my research on integration if user behaviour and interactions to dynamic contents online. I have a broad skill and particular interest in student and children behaviour based on their physiological and psychological response. This as driven me into considering and basing my career in teaching as a lecturer. But my interest started much earlier and was increased by experience.

Proposed Plan in Teaching

My recent career as a lecturer in my community was rewarding. Though it was quite demanding has I had to joggle a lot of courses to deliver a good job but I also discovered that motivation was an important factor. My experiences has made me positive about teaching, together with my education they are adequate support for a lecturer to teach. I feel I could teach the following courses with a high level of expertise:

• Undergraduate: Database, File management, Programming languages (MATLAB, PYTHON and R), User experience, e.t.c

• Graduate: Database management system, Cyber-physical systems, and more. I am also interested in developing innovative courses that are applicable to sustainability in both Statistical/Mathematical and Computer Science. On final notes, I propose a graduate level technical communications class which include giving technical writing/reviewing, presentations and seminars also an assignment to prepare them for fellowship grant proposal.

I encourage the following attitudes in students who complete course work or research with me:

• develop a sound environmental/ethical/social reasoning, that is the ability to think long term.

• demonstrate understanding of rigorous tools for design/analysis to teach others

• exhibit audience driven communication strategies that justifies and explain the importance of teaching, research and learning)