Application Form

Research Associate

Personal Details

Title	Dr
Forename	Iyalla
Preferred Name	John
Middle Name(s)	John
Initial(s)	IJA
Surname	Alamina
House Number or Name	15
Street	Milford Court
Address 3	Milford Street
Town/City	Huddersfield
Post Code	HD1 3DY
Country of Residence	UNITED KINGDOM
Contact No.	07459136287
Email Address	john.alamina@hud.ac.uk

Qualifications

Qualification	DOCTORATE
Qualification Other	
Subject	INFORMATICS (Speech Processing)
Result	Write Up Stage
Institute	Other
Institute Other	University of Huddersfield
From Year	2015
To Year	2019
Section Not Applicable	No

Qualifications

Qualification	OTHER POSTGRADUATE QUALIFICATION
Qualification Other	
Subject	MSc ENGINEERING CONTROL SYSTEM AND INSTRUMENTATION
Result	DISTINCTION
Institute	Other
Institute Other	UNIVERSITY OF HUDDERSFIELD
From Year	2013
To Year	2014
Section Not Applicable	No

Qualifications

Qualification	FIRST DEGREE
Qualification Other	
Subject	BTech COMPUTER ENGINEERING
Result	2ND CLASS LOWER
Institute	Other
Institute Other	RIVERS STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, PORT HARCOURT, NIGERIA
From Year	2002
To Year	2006
Section Not Applicable	No

Relevant Training

Relevant Training

Employment History

Employer Name	Phoenix Material Testing
Employer Address	Unit 8, The Wallows Industrial Estate, Fens Pool Avenue, Brierley Hill, West Midlands, DY5 1QA
Start Date (DD/MM/YY)	17/12/18
End Date (DD/MM/YY)	26/03/19
Job Title	Electronics/Embedded Engr
Job Description	-Design and implementation of Embedded System Circuits using Altium designer. -Routing of Electronic circuit boards using Altium designer -Preparation of BOM using Altium designer and MS Excel -Management of Embedded projects using Microsoft Project -Development of Drivers for various embedded subsystems. -Use of Mbed and Keil platform for development of Embedded firmware -Development of various state machine and other algorithms for embedded firmware. -Development of Embedded Circuit Testing systems -Analysis and design of embedded systems used for various material testing systems. -Implementation of Agile mechanisms for management of embedded projects.
Reason for Leaving/Notice Period	Focus on Research Write Up
Section Not Applicable	No

Employment History

Employer Name	University of Huddersfield
Employer Address	University of Huddersfield, HD1 3DY, Huddersfield United Kingdom
Start Date (DD/MM/YY)	22/11/17
End Date (DD/MM/YY)	30/06/19
Job Title	Web Architect
Job Description	- Requirements Analysis - Implementation of MySQL Database - Full Stack Web Portal using JavaScript and PHP MVC frameworks
Reason for Leaving/Notice Period	1 Month Notice period
Section Not Applicable	No

Employment History

Employer Name	University of Huddersfield, United Kingdom.
Employer Address	Queens Gate, HD1 3DH, Huddersfield, United Kingdom.
Start Date (DD/MM/YY)	29/09/17
End Date (DD/MM/YY)	31/01/19
Job Title	Laboratory Assistant
Job Description	-Development of Curriculum for Undergraduate and Post Graduate Study for Web and Machine Learning Technologies. -Wakirike Language demonstrator for the Department of Linguistics -Preparation of Laboratory Demonstration for software Technologies include, ASP.NET Core MVC, ASP.NET Core Web API, Entity Framework, Keras, Matlab, python, SQL server, MySQL, ASP.NET web forms, TensorFlow, ScikitLearn -Courses Taught include: Undergraduate database applications and post graduate 2 machine learning series. Interacting with students, assisting with answering questions and motivating them to get the best from their laboratory work.
Reason for Leaving/Notice Period	Focus on Thesis write-up
Section Not Applicable	No

Membership of Professional Bodies

Name of Professional Body	
Further Details	

Reference Details

Organisation	University of Huddersfield
Title	Dr
Forename	David
Surname	Wilson
Job Title	Senior Lecturer
Capacity in Which Known to You	PhD Supervisor
Address 1	University of Huddersfield
Address 2	
Address 3	

Town/City	Huddersfield
Post Code	HD1 3DY
Email Address	d.r.wilson@hud.ac.uk
Contact No.	+441484473118
Permission To Contact	Yes

Reference Details

Organisation	University of Huddersfield
Title	Dr
Forename	Keith
Surname	Mccabbe
Job Title	Manager
Capacity in Which Known to You	Planning and Information Services
Address 1	University of Huddersfield.
Address 2	
Address 3	
Town/City	HUDDERSFIELD
Post Code	HD1 3DY
Email Address	K.McCabe3@hud.ac.uk
Contact No.	+44 1484 47 2069
Permission To Contact	Yes

Additional Questions

What is your highest educational qualification?	Other Postgraduate Qualification
For the above qualification what is the Academic Discipline?	Control Systems H660
For the above, what grade did you achieve?	First with Honours
Previous Employment - Please select the option which most closely describes your most recent employment/status	Another Higher Education Institute (UK)
If you have previously worked in a UK Higher Education Institute please select the name of the most recent one you have worked in.	University of Huddersfield 0061
When would you be available to take up appointment?	August 2019
How did you find out about this vacancy?	Other
What is your current salary in GBP (please enter numbers only)?	9600
Are you currently employed by the University of Edinburgh?	No
If you are a UoE staff member, what is your current grade?	
If you are a UoE staff member, are you full-time or part-time?	
If you work part-time, what hours are your contracted number of hours of work?	
If you are a UoE staff member, are you currently formally at risk of redundancy?	
If you are formally at risk of redundancy at University of Edinburgh, do you currently have more than one post with the university?	
If yes, when did you start in the post that is currently at risk?	
Are you a current student at the University of Edinburgh?	No
If yes, please provide your student matriculation number (numbers only)	
Have you ever studied at the University of Edinburgh?	No
If you are employed in a Teaching, Teaching & Research or Research capacity please select which of the following options best describes your academic qualification	
01 Successfully completed an institutional provision in teaching in the higher education sector accredited against the UK Professional Standards Framework	
02 Recognised by the Higher Education Academy as an Associate Fellow	
03 Recognised by the Higher Education Academy as a Fellow	
04 Recognised by the Higher Education Academy as a Senior Fellow	
05 Recognised by the Higher Education Academy as a Principal Fellow	
06 Holder of a National Teaching Fellowship Scheme Individual Award	
07 Holder of a PGCE in higher education, secondary education, further education, life long learning or any other equivalent UK qualification	
08 Accredited as a teacher of their subject by a professional UK body	
09 Other UK accreditation or qualification in teaching in the	

higher education sector

10 Overseas accreditation or qualification for any level of teaching

99 No qualification held

All appointments are subject to employees having the right to work in the UK to undertake the terms of their employment. In order to establish whether you have eligibility to work in the UK or will require sponsorship please answer the following questions.

Are you a UK/European Economic Area citizen?	No
If you are not a UK/European Economic Area citizen, do you hold a valid permission (visa) to work in the UK?	Yes
If you answered 'yes' to the above question, are there any restrictions on the number of hours you may work?	Yes
If there are restrictions, please provide details in the box to the right.	20
If you are not a UK/European Economic Area citizen, have you previously been sponsored by an employer to live and work in the UK?	Yes
If you answered 'yes' to the above question, when did your sponsorship/visa lapse or end (please enter the date in the box to the right)?	April 2019

Upload Documents (e.g. CV)

Date Loaded	File Name	File Size(KB)
	No Upload Documents (e.g. CV) found	

Supporting Statement

Supporting Statement

I am currently at the final write up stage of my PhD thesis. In informatics particularly Speech Recognition using end-to-end models (abstract below). All my models have been developed using Python Tensorflow and I also have a strong C/C++ background as indicated in my CV. I have experience working with Kaldi Speech system and Sphinx as well as other deep-learning frameworks such as Keras.

My research speech models were trained using GPU infrastructure which was setup and configured solely by me and my Tensorflow models were based on GPU implementations. I currently have 3 unpublished articles and a poster presentation submitted for the UKSpeech 2019 conference.

During my PhD research I have been involved in various machine learning algorithms including regular practices such as split-train-validation-testing, K-means algorithms, Principal Component Analysis (PCA), K-nearest, neighbours, GMM, Viterbi searches, KNN, Convolution Neural networks, and more intensively Recurrent Neural Networks (BiRNNs, Attention networks, Deep convolutional scattering networks).

Speech processing algorithms used includes but not limited to auto-correlation, wavelets, MFCC processing and wavelet transforms. I have drafted machine learning tutorial module outlines for MSc Data Science program here at the University of Huddersfield.

Generally, I am stimulated and a proactive learner. I don't mind going out of my way to ensure I get the best quality from my endeavor as my esteemed colleagues at CSTR Edinburgh will testify. I have paid them a visit three years ago to receive insights for the direction of my research.

Gracefully enough, my current research in in direct correlation with the SpeechWave project utilizing deep RNNs and deep scattering convolution networks for speech recognition. So this is a rare opportunity to continue my research which I have thoroughly enjoyed the journey so far. I will be excited to join the team.

Research Abstract

This work explores the prospects of deep recurrent end-to-end architectures applied to speech recognition. Complementary aspects of developing speech recognition systems are eliminated by focusing on end-to-end speech units as a two-step process requiring a Connectionist Temporal Character Classification (CTCC) model and Language Model (LM) rather than a three-step process requiring an Acoustic model(AM), LM and phonetic dictionary. A two-step process rather than a three-step process is particularly desirable for low resource languages as resources are required to build only two models instead of three models.

Our Bi-directional Recurrent neural network (Bi-RNN) end-to-end system, is augmented by features derived from a deep scattering network as opposed to the standard Mel Cepstral (MFCC) features used in state of the art acoustic models. These specialised deep scattering features, consumed by the Bi-RNN, model a light-weight convolution network. This work shows that it is possible to build a speech model from a combination of deep scattering features and a Bi-RNN. There has been no record of deep scattering features being used in end-to-end bi-RNN speech models as far as we are aware.

Rehabilitation of Offenders

Nature of Conviction

Conviction Date (DD/MM/YY)

Pending Charges

Pending Charges Date (DD/MM/YY)

Nature of Caution

Caution Date (DD/MM/YY)

Section Not Applicable Yes

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