



Audrey Julia Walegwa Mbogho, PhD
Associate Professor of Computer Science

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EDUCATION

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| <i>The City University of New York</i> PhD Computer Science | 2006 |
| <i>City College of the City University of New York</i> MSc Computer Science | 1995 |
| <i>City College of the City University of New York</i> BSc Computer Science | 1992 |

PROFESSIONAL MEMBERSHIPS

Current:

ACM (Association for Computing Machinery)
EAI (European Alliance for Innovation)
SAICSIT (South African Institute for Computer Scientists
and Information Technologists)

Previous:

CSSA (Computer Society South Africa)
STTUG (Science Teaching with Technology Users Group, a
local interest group at The University of Cape Town)
IEEE Computer Society

EXPERIENCE

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| <i>Pwani University</i> Associate Professor Computer Science | 2015 – Present |
| <i>The University of Cape Town</i> Senior Lecturer Computer Science | 2006 – 2014 |
| <i>City University of New York</i> Software and Hardware Support Various departments | 1994 – 2003 |

TEACHING

Subjects Taught:

Introduction to Computers (CS1)
Object-Oriented Programming (CS2)
Automata Theory (CS2)
Introduction to Java (CS1)
Data Structures (CS2)
Java for Engineers (CS1)
Python for Engineers (CS1)
Software Engineering and HCI (CS2)
Machine Learning (CS3)
Speech and Language Technologies (Honours)
Genetic Algorithms and Neural Networks (Honours)
Knowledge-Based Systems. Taught at The Mombasa
Polytechnic University College during sabbatical in 2011.
Expert Systems (Honours)

Activities in support of teaching:

Curriculum development
Lecture preparation
Exam preparation
Assignment preparation
Student consultations
Supervision of undergraduate and Honours projects

RESEARCH

Interests:

Machine learning
Novel user interaction modalities (speech, vision)
Human language technologies (especially speech
recognition)
E-health

E-learning, educational technology
Expert systems

Activities:

Supervision of postgraduate students (PhD, Master's, Honours)

Current PhD students: 2

Current Master's students: 3

Graduated Master's students: 7

Examining Master's and PhD theses (external and internal)

Reviewing conference and journal papers

Presenting at conferences

Attending seminars

Member of the ICT4D Centre

(<http://www.ict4d.cs.uct.ac.za>)

SERVICE AND ADMINISTRATION

Reviewer for poster submissions for ACM DEV 2014

Member of Program Committee for SAICSIT annual conference, 2011 – 2014.

Course Coordinator for CS2 courses (2014)

Course Coordinator for CS1 course Python for Engineers (2013)

Coordinator for the Master's in Information Technology course (2007 – 2012): recruiting and registering students; responding to enquiries; advising students; supervising teaching assistants and notes editor; editing informational website www.cs.uct.ac.za/mit. Supervising the work of two teaching assistants (Master's students) and a notes editor (a PhD student). Served in search committee for Senior Lecturer position in 2009, resulting in a successful hire.

Compiled Annual Review 2008, a document detailing the activities of all staff in the department in 2008.

In charge of the Merit Function, a function in which student achievement is recognised and certificates and awards are given.

In charge of second year software engineering project

Course coordinators for the CS1 Java for Engineers course (2007)

STUDENT LEADERSHIP

City University of New York Graduate Center

Served in the Computer Science Department's Executive Committee.

Taking part in resolution of student course-related disputes

Taking part in strategic planning for department's future
Taking part in vetting candidates for academic positions

Served as a representative of the department in the Doctoral Students' Council.

Presenting student concerns to department

Planning student activities

Organising department's annual party for students and staff (one of the few opportunities where students got a chance to interact with staff socially)

INVITED TALKS

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| PhD Proposal Writing. Seminar given to IT lecturers at the Mombasa Polytechnic University College | 2011 |
| | 2011 |
| Human Computer Interaction. Given at the Mombasa Polytechnic University College | 2008 |
| Human Computer Interaction. Given at SUNY Ulster County Community College, New York, USA. | 2001 |
| Safe Computing. Given at SUNY Sullivan County Community College, New York, USA. | |

PUBLICATIONS

1. Mvurya Mgala, Audrey Mbogho. Data-Driven Intervention-Level Prediction Modeling for Academic Performance. Proceedings of the ACM International Conference on Information and Communication Technologies and Development (ICTD 2015), Singapore, May 2015.
2. Yamiko Msosa, Audrey Mbogho and C Maria Keet. Clinical Knowledge Framework for Low Resource Settings:A case of Malawi. Poster presented at SAICSIT '14, Gauteng, South Africa.
3. Mvurya Mgala and Audrey Mbogho. Selecting Relevant Features for Classifier Optimization. 2nd International Conference on Advanced Machine Learning Technologies and Applications(AMLTA2014), Cairo, Egypt November 2014
4. Audrey Mbogho and Stephen Marquard. Improving the Transcription of Academic Lectures for Information Retrieval. Proceedings of the 12th International Conference on Machine Learning and Applications (ICMLA'13), Miami, Florida, USA, December 2013.
5. Audrey Mbogho, Joel Dave and Kulani Makhubele. Diabetes Advisor - A Medical Expert System for Diabetes Management. Proceedings of the Fifth International IEEE EAI Conference on e-Infrastructure and e-

Services for Developing Countries (AFRICOMM 2013), Blantyre, Malawi, November 2013

6. Alexander Kivaisi and Audrey Mbogho. Web-Based Corpus Acquisition for Swahili Language Modelling. Proceedings of the Third International Workshop on Spoken Languages Technologies for Under-resourced Languages (SLTU'12), Cape Town, South Africa, May 2012.
7. Audrey Mbogho and Michelle Katz. The Impact of Accents on Automatic Recognition of South African English Speech: A Preliminary Investigation. Proceedings of SAICSIT 2010, BelaBela, South Africa.
8. Samuel King and Audrey Mbogho. Evaluating the usability and suitability of mobile tagging media in educational settings in a developing country, Proceedings of IADIS International Conference on Mobile Learning, February 2009, Barcelona Spain.
9. Audrey Mbogho and Lori Scarlatos. Genetic Parameter Tuning for Reliable Segmentation of Colored Visual Tags. Proceedings of the ACM Genetic and Evolutionary Computing Conference (GECCO '07), July 2007, London, England.
10. R. Karodia, S. Lee, A. Mehta and A. Mbogho. CipherCode: A Visual Tagging SDK with Encryption and Parameterisation. Proceedings of the IEEE Workshop on Automatic Identification Advanced Technologies (AutoID 2007), June 2007, Alghero, Italy.
11. Audrey Mbogho, Reliability and Testing in Vision-Based Interaction, PhD Dissertation, City University of New York, New York, USA, 2006.
12. Audrey Mbogho and Lori Scarlatos, Towards Reliable Computer Vision-Based Tangible User Interfaces. IASTED-HCI 2005, Phoenix, Arizona.
13. Lori Scarlatos, Audrey Mbogho, and Magdalena Jaworska, Teaching with Tangibles: A tool for Defining Dichotomous Sorting Activities. UIST 2004, Santa Fe, New Mexico (poster).

REFEREES

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