SELINA ATWANI OCHUKUT

_____

+254723030134

selinao@uonbi.ac.ke

ochukuta@gmail.com

SUMMARY

Experienced in teaching courses in software development; systems analysis and design, programming, design and analysis of algorithms, systems audit and security, business entrepreneurship. I am also experienced in writing research proposals and carrying out research.

PROFESSIONAL EXPERIENCE

Teaching and Research Experience
Teaching undergraduate students software development units; system analysis and design, design and analysis of algorithms, programming labs and systems audit and security, business principles and entrepreneurship. Involved in writing of research proposals and carrying out research in the areas of computing.

Supervision of Student Capstone (4th year) Software Application Development Projects

- Involved in supervising the fourth year undergraduates' capstone projects. The supervision involves guiding the students in the whole software development process (Project conceptualization, requirement analysis, system design, implementation and testing).
- Some of the projects supervised include:

COVID-19 Home based care and surveillance system

- A system that seeks to help in management of people placed on home based care through self-reporting by patients about their symptoms for quick response from the health care team and those they are in contact with for picking of the possible cases.
- A lot of emphasis was put on UX Design to ensure the different types of users could use the system effectively.

Crowd sourced CV Review and Job Recommendation Tool

- A platform that seeks to connect fresh graduates to professionals who can review their CV and recommend jobs based on the reviewed CV.
- The project involved use of AI to build a recommender engine and a lot of testing since AI-based systems are rarely 100% accurate

Drunk Driver detection system

- A car with an embedded system that seeks to curb accidents caused by drunk drivers by shutting down the car engine after un acceptable level of alcohol is detected and sends notification to registered confidants to pick up the drunk driver.
- The embedded systems involved a lot of testing and quality assurance due to integration of two systems hence the need to test the systems as units as well as an integrated solution

Facial recognition class attendance system

- A system that seeks to keep track of physical class attendance through facial recognition.
- The system uses Convolutional Neural Networks (part of AI) that requires a lot of testing to increase accuracy as much as possible, since such systems are rarely 100% accurate

Leaners competency based measurement system with Machine Learning:

- A system that seeks to detect learners' competencies using machine learning and recommend learning materials based on those competencies.
- The system uses Machine Learning and a lot of testing was done before it was considered complete

Software Development experience

Development of Games for learning for primary school children at C4DLab

Leading the team that was developing the games for learning apps. The project involved the analysis, design, implementation and testing of five games for learning. The work involved software quality assurance, testing and user experience and liaison with Kenya Institute of Curriculum Development for input into the requirements and for quality assurance before release to the users.

Library system and website for Nairobi Hospice

Involved in the development and testing of the organization website, carried unit, integration and acceptance testing for the site. Developed a library management system and carried both unit, integration, system and acceptance testing for the system. In addition, I was involved in user support and training for basic ICT skills.

Web Development for Mambo Microsystems

Involved in designing and developing websites and publishing and optimizing web content

Administration of the Incubation Program at C4DLab.

Involved in the design and development of the incubation program, assessing the ideas from incubation applicants and organizing and managing training for the incubation participants. This work involved checking the quality of software developed by the incubation participants.

Publications

1. S.A. Ochukut and R. Oboko,(2021) Strategies for Managing Cognitive load and Enhancing motivation in e-learning. S. Keengwe(Ed**)**, *Handbook of Research on Equity in Computer Science in P-16 Education (Chapter 14 Pg. 248-264*). IGL Global
2. **S. A. OCHUKUT** and R. OBOKO, "A Learner Model for Adaptive e-Leaning Based on Learning Theories," 2019 IST-Africa Week Conference (IST-Africa), Nairobi, Kenya, 2019, pp. 1-8, doi: 10.23919/ISTAFRICA.2019.8764826.
3. S.A. Ochukut and T.K. Omwansa, "Implementation of open education resources at the University of Nairobi: A case of innovation studies course". Innovation Week 2016

Employment History

August 2019-To Date: University of Nairobi, School of Computing and Informatics-**Tutorial Fellow.**

March 2013-August 2019: University of Nairobi, School of Computing and Informatics-**Graduate Assistant**

June 2011-March 2013: Nairobi Hospice-**ICT Officer**

April 2009-July 2009: Nairobi City Council-**ICT Intern**

Education

2019-To Date: University of Nairobi **-**PhD in Information systems

2013-2015: University of Nairobi- Msc. Information Technology Management

2006-2010: Masinde Muliro University –Bsc. Computer Science

2001-2004: Kolanya Girls- Kenya Certificate of Secondary Education

Referees

Prof. Robert Oboko,
Associate Professor,
School of Computing and Informatics,
University of Nairobi.
Tel: +254 722 320 525
P.O. Box 30197
00100, Nairobi, Kenya.
roboko@uonbi.ac.ke

Prof. Peter Waiganjo Wagacha
Professor, School of Computing and Informatics
University of Nairobi
Tel: +254 723 488114
P.O Box 30197-00100
Nairobi
waiganjo@uonbi.ac.ke

Dr. Tonny K. Omwansa
CEO
Kenya National Innovation Agency
Tel: +254 723 509 155
tomwansa@uonbi.ac.ke