

FAITH WAVINYA MUTINDA

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EDUCATION

Nara Institute of Science and Technology

PhD in Information Science and Engineering

October 2020 – March 2023 (expected)

Nara, Japan

Nara Institute of Science and Technology

Master in Information Science and Engineering

April 2019 – September 2020

Nara, Japan

Osaka University

Research Student (Big Data Engineering Laboratory)

April 2017 – March 2019

Osaka, Japan

Kenyatta University

BSc Telecommunication and Information Technology

May 2011 – December 2015

Nairobi, Kenya

RESEARCH PROJECTS

Automatic Data Extraction to Support Meta-Analysis Statistical Analysis

- Developed a transformer-based deep-learning model to support automation of clinical domain meta-analysis process. The model automatically extracts core information from clinical trials research publications, converts the data into structured format, performs statistical analysis, and visualizes the results.
- Presented the results in an international health informatics conference and also published a journal paper.

Contextualized medication event extraction

- Participated in a shared task challenge and developed a deep-learning based model for extracting medication mentions from clinical notes and classifying the medications into different classes depending on the context.
- Presented the results in an international clinical natural language processing workshop.

Semantic textual similarity in clinical domain texts

- Developed a deep-learning model for computing semantic similarity in English and Japanese clinical texts.
- Published the results in an international journal.

WORK EXPERIENCE

MES (UK) Limited, Sesby

Support Staff

July 2016 – March 2017

Nairobi, Kenya

- Supported the production and quality assurance team to ensure timely delivery of orders
- Prepared summary reports on the quality status of the products based on quality assurance team reports

Safaricom Limited

Business Solutions and Architecture Intern

October 2015 – Jan 2016

Nairobi, Kenya

- Collaborated with field technicians and scheduled surveys to determine the best services to offer the clients

- Collaborated with field technicians and sales teams to prepare competitive business and technical proposals for clients

Jamii Telecommunications Limited

May 2014 – August 2014

Network Operations Center Intern

Nairobi, Kenya

- Coordinated with field technicians to ensure fast fault resolution within the slated service level agreement
- Coordinated with other network monitoring teams to minimize service outages and improve client satisfaction

LEADERSHIP EXPERIENCE

Nara Institute of Science and Technology IEEE Student Branch

Nara, Japan

Vice Chair

January 2020 – December 2021

- Monitoring the progress of the student branch programs
- Preparing and submitting research proposals for IEEE events

Treasurer

January 2022 – Present

- Maintaining the student branch financial accounts and preparing the budget

SKILLS

Programming

Python, JavaScript, HTML, CSS | Natural Language Processing | Machine Learning | Deep Learning

PUBLICATIONS

- **Mutinda, F.W.**, Liew K., Yada, S., Wakamiya, S., & Aramaki, E. (2022). Automatic Data Extraction to Support Meta-Analysis Statistical Analysis: A Case Study on Breast Cancer. BMC Medical Informatics and Decision Making
- **Mutinda, F.W.**, Yada, S., Wakamiya, S., & Aramaki, E. (2022). AUTOMETA: Automatic Meta-Analysis System Employing Natural Language Processing. Studies in Health Technology and Informatics
- **Mutinda, F.W.**, Yada, S., Wakamiya, S., & Aramaki, E. (2021). Semantic Textual Similarity in Japanese Clinical Domain Texts Using BERT. Methods of Information in Medicine
- **Mutinda, F.W.**, Nigo, S., Shibata, D., Yada, S., Wakamiya, S., & Aramaki, E. (2020). Detecting Redundancy in Electronic Medical Records Using Clinical BERT. The Association for Natural Language Processing