

Information Technology & Informatics Engineer: Information Technology & Informatics Engineer with expertise in web development, extreme event forecasting, and intelligent system design. Skilled in Python, JavaScript, React, Node.js, and system optimization. Proven ability in data-driven decision-making and digital transformation. Excited to bring technical problem-solving skills to an entry-position role.

EDUCATION

04/2022 – 03/2024 **PhD Informatics**, Joint Doctoral Program for Sustainability Research, University of Electro-Communications, Chofu, Tokyo, Japan

Thesis title: 'Exploring various Machine and Deep Learning Methods for Prediction of Extreme Events'

Supervisor: Prof. Dr Kayoko Yamamoto

Submission: Proposed date – January 2025

Graduation: Proposed date – March 2025

Research Methods: Advanced techniques in machine learning and deep learning for predictive modelling

04/2020 – 03/2022 **Master of Engineering, Informatics**, University of Electro-Communications, Tokyo, Japan

Dissertation: 'Twitter For Flood Situation Awareness and Emergency Response'

Modules: Investigating the role of Social Networks (SNs), particularly Twitter (now X) in situation awareness during floods.

Research Methods: Data collection and preprocessing, sentiment analysis using Natural Language Processing (NLP), Categorization, Topic modelling, geospatial, temporal and network analysis, and Machine Learning and Deep Learning for classification.

01/2012 – 03/2018 **BS with Honors in Information Technology (First Class)**, University of Juba, Juba, South Sudan

Modules: Computer Networks, Software Engineering, Systems Reliability and Quality Assurance.

Dissertation: College Information System.

ACADEMIC EXPERIENCE

04/2020 – 03/2025 **Research Assistant**, University of Electro-Communication, Tokyo, Japan
Onboarding new researchers (Master's and Ph.D students), part-taking in organizing conferences and contributing to Lab research

3/2019 – 11/2022 **University Teaching and Research Assistant (Remote)**, University of Juba, Juba, South Sudan

& 12/2022 – to date Taught Computer Networks (under supervision) to third year students. Currently supervising four (4) undergraduate students' graduation projects (remotely). Projects focus on the utilization of Machine and Deep Learning, Natural Language Processing (NLP) and Geographical Information System (GIS)

Oct. 28-29 2023 **Conference Organisation member**, University of Electro-Communications
Arranged, coordinated and provided live assistance to the conference presenters, ensuring that all the speakers in the assigned presentation hall were able to use and access the functionality they needed

PUBLICATIONS

Accepted **‘A hybrid SARIMA-Prophet model for predicting historical streamflow time-series of the Sobat River in South Sudan’** Discover Applied Sciences Journal, Springer – to be published in late July 2024

Under review **‘Comparing the performance of different Machine Learning and Deep Learning Models on Streamflow Prediction using the CAMELS dataset’ – Springer Nature**

CONFERENCE AND SEMINAR PAPERS

2023 **‘Evaluation of Sentinel-1 GRD Data with GEE for Floods Mapping in Rubkona, South Sudan’**. Paper presented at the International Conference on Information Technology in Disaster Risk Reduction (ITDRR), Tokyo (Hybrid), Japan – December 4 – 6. Part of ITDRR conference proceedings, 2023

2023 **‘Seasonal ARIMA Prediction of Streamflow: Sobat River Tributary of the White Nile River’**. Paper presented at the 32nd Annual Conference of the Geographical Information System Association, International Association of Geo-Informatics (IAG’i), October 28th – 29th 2023 – University of Electro-Communications, Tokyo, Japan

2021 **‘Flood Disaster Management System for Situation Awareness and Response Using Twitter Data’**. Paper presented at the International Conference on Information Technology in Disaster Risk Reduction (ITDRR), Tokyo (Online), Japan – October 25 – 27. Part of ITDRR conference proceedings, 2021

OTHER PROFESSIONAL EXPERIENCE

06/2022 – to date **Founder and Lead Developer, Junub Host**,
Manages and runs a Web startup – domain names, hosting plans, security certificates (HTTPS), Web and App development. <https://junubhost.com>

ACTIVITIES

2015 – Present **Football & Personal Marathons**
Participates in community football games in Chofu, Tokyo and runs personal marathons as hobbies

SKILLS

Languages **English** (Native Level); **Japanese** (Business Conversation); **Swahili** (Good)

Programming Skills Python for Data Science; Full-stack developer with knowledge of JavaScript, React, Node Js, Python, Django, HTML and CSS.

REFEREES

Prof. Dr Kayoko Yamamoto,
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