DENIS PASTORY RUBANGA

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Address: Tokyo, Japan

Professional Summary

- An innovative and self-motivated research scientist with 10+ years of practical experience implemented using applied data science, agro-informatics, G.I.S and remote sensing, translated in 5+ scientific publications and 10+ scientific talks.

- Excellent interpersonal, effective communication skills, with the capability to understand, interpret, and communicate scientific findings to the audience, evidenced by 10+ oral presentations experience, teaching, and mentoring teams.

- Analytic problem-solving skills, attention to detail, time management, advanced planning, project management, and ability to multi-tasking evidenced by collaborations in international scientific multidisciplinary teams in 2+ universities.

Work Experience

Postdoctoral Research Fellow   March 2021 – Present

Tokyo University of Agriculture - Lab. Regional Environment Info Studies   *Tokyo, Japan*

- Collaboration in national project by integrating remote sensing and GIS based images in deep learning algorithms for land surface fault detection in semi-arid lands in Djibouti.
- Development of deep learning models to aid in underground water cycle simulation models and creation of water resource potential maps in semi-arid lands in Djibouti to enhance economic production

Applied Research Scientist   April 2016 – Mar 2021

Gained as Ph.D. and MSc at Tokyo University of Agriculture   *Tokyo, Japan*

Research and Innovation

- Undertook experimental and analytical research into integrating of emerging technologies (ICT and AI) to enhance production of low-resourced communities using advanced data Science, applied computer vision algorithms that resulted into 5+ publications
- Well-evidenced research management skills, undertaking several independent research consultants as well as helping graduate students in their statistical and data analysis tasks.
- Demonstrated excellent oral and written communication skills in conference presentations that resulted into 5+ publications and 10+ conference presentations.
- Developed and oversaw an international research project awarded by Network of Excellence in Artificial Intelligence for Development (AI4D) in sub-Sahara Africa collaborating with 3 universities.

Project management and Leadership

- Led a multi-disciplinary team to conceive and execute research projects that led to 5+ publications, 10+ conference presentations, and USD 70,000+ in grant funding
- Facilitated and guided teams of about 10 undergraduate students annually during an international intercultural exchange program between Japan and Tanzania which resulted into strong partnership

Machine Learning Engineer   July 2019 – Mar 2021

MDIU Inc   *Tokyo, Japan*

- Consultation and strategic project management of the practical implementation of A.I. technology for clients - from automobile, Food, Agriculture and livestock industry resulting into company improved production
- Mentoring local and international company data science team adopting A.I skill sets achieved through training and coaching resulted into companies securing data science projects
- Successfully managed and led offshore/remote machine learning engineers resulting to successful PoC of clients.

Data Science Consultant
iNet Inc

Dec 2019 – Mar 2021
Tokyo, Japan

- Provided training and team building of company Data Science team resulting into team presentation and exhibiting at 2+ workshops in less than a year.
- Advised on strategic planning of business potentials for data science team and facilitated in developing strategic partnership resulting to collaborative research and training between the company and 2 national and 1 international university.

Engineering Expert - Irrigation and Land Use planning
Ministry of Regional Administration and Local Government

Jan 2009 – Mar 2012
Tanga, Tanzania

- Successfully developed, surveyed, designed and supervised 5+ irrigation projects summing up to USD 120,000 for the benefit of increasing food production
- Initiated and developed 5+ new irrigation programs to improve irrigation agriculture locally resulting to increased production of 20+ villages
- Trained 1000+ farmers on construction of local modernized storage house from local resources for food security.
- Maintained and managed agricultural equipment, machinery and Land Use Planning for Agriculture in River Basin areas.

Data Analyst - (intern)
Ministry of Agriculture, Food Security and Co-op

April 2007 – Jan 2009
Dar-es-salaam, Tanzania

- Data collection and socio-economic feasibility studies of potential +20 national irrigation projects that contributed to national irrigation master plan
- Organised a team to carry out socio-economic analysis of +20 national irrigation schemes

Education

Ph.D. Agricultural Engineering, Tokyo, Japan
2018 – 2021
Thesis: Integration of ICT and AI to Enhance Tomato Production

MSc. Agribusiness Management, Japan
2016 – 2018
Tokyo University of Agriculture, Tokyo, Japan

B. Sc. International Agriculture and Food Studies, Tokyo, Japan
2012 – 2016
Thesis: Study of Conflicting Water Use and Demand and its Impacts to River Basin

B. Sc. Irrigation and Water Resource Engineering, Tanzania
2010 – 2012
Best student transferred to Tokyo University of Agriculture

Associate Degree Land Use Planning, Tanzania
2006 – 2008
Agriculture Training Institute, Tanzania

Awards

- A Computer vision Tomato Pest Assessment and Prediction tool. award by Artificial Intelligence for Development (AI4D) in sub-Saharan Africa.

- Computer Vision for Global Challenge, Awarded by Facebook and the Partnership on A.I.

- Honjo International Scholarship Foundation. Awarded to 22 out of 1000 applicants.

- Initiative Research Project of Graduate School, Awarded by Tokyo University Research Institute.

Skills

Human Languages: English, Kiswahili, Japanese, Luganda, Luo
Languages: Python,R, SQL, JavaScript, HTML/CSS
Software: ArcGIS 10+, AGISOFT, PIX4D, ENVI
Developer Tools: Jupyter Notebooks, Git, Google Cloud Platform, VS Code, PyCharm, Amazon AWS
Frameworks: Keras, TensorFlow, Pytorch
OS: Linux, Mac OS, Windows