

Denis Pastory Rubanga (Ph.D)

Tokyo, Japan +817033371428 denispastoty@gmail.com www.linkedin.com/in/denispastory

CAREER SUMMARY

- Ability to multi-tasking evidenced by collaborations in international scientific multidisciplinary and cross-functional teams in 2+ universities and technical lead of diverse multi-national team of business, software engineers, and data scientists to develop products that impact thousands of people
 - An innovative and self-motivated applied technical data scientist with 10+ years of practical experience implemented in managing applied data science, Management informatics, G.I.S and remote sensing successful products, translated in 7+ documented scientific papers, 20+ technical-scientific talks and successful industrial products.
 - Strong statistical analytic problem-solving skills, effective implementation, time management, advanced strategic planning, and management of data-driven projects in various industry e.g., ICT, construction, agriculture, environment, Finance, Automobile, community, and SaaS workplace-related products
 - Excellent interpersonal, effective communication skills, with the capability to interpret, report and communicate scientific findings to an audience, evidenced by 20+ technical-scientific talks (e.g., CVPR, ICLR, ISSAAS, JSAI), training and mentoring teams.
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KEY EXPERTISE

Data Visualization - Shiny, Tableau, Exploratory, MixPanel, DataBox, ArcGIS Pro, AgiSoft

Tools and Languages - R, Python, MS Excel, Pix4D, ENVI, Jupyter Notebook, SQL

Cloud Platform - Amazon AWS, Google Cloud, Trello(Project management)

Others; OpenCV, Keras, SciKit-Learn, TensorFlow, Pytorch

Data Mining/collection; Multispectral camera, Drone, Surveys

Machine Learning - Supervised Learning (Linear regression, Decision trees, Gradient Boosting, Random forest, Logistic regressions, Support Vector Machine, etc),
Unsupervised (K-means, KNN, Anomaly detection)

PROFESSIONAL EXPERIENCE

Tokyo University of Agriculture, Tokyo

Apr 2021 – Present

Research Fellow / AI Engineer (contract)

- Spearheading research to integrate deep computer vision learning models in land surface fault detection in semi-arid lands in Djibouti.
- Investigate and identify limitations of existing remote sensing and GIS tools in land surface fault detection in semi-arid lands.
- Initiated innovative approaches using latest AI models in land surface fault detection.

- Development of deep computer vision 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.

Kiara Inc., Tokyo

June 2020 – August 2021

Chief Technology Officer / Machine Learning Engineer

- Drove existing inherent services into a data-driven services by integrating latest state of art technology in company SaaS product.
- Researched and developed framework for company to adhere to for future service/product developments.
- Enhanced services by integrated latest technology into existing services to upscale services and increase customer satisfaction.
- Identified market gaps and developed integratable latest technology into a new patentable (patent under review) product
- Lead development teams, managed decision making of business system designs and planning all software development life cycle of the company, data governance and data privacy principles.
- Tools used data science BI tools in data wrangling, data extraction, explanatory data analysis and applied in software system and designs and in developing Natural Language Processing API and shipped to API marketplaces

Tokyo University of Agriculture., Tokyo

Apr 2016 – Mar 2021

Applied Data Scientist / Research Scientist Gained as PhD & MSc

Research, Technical and Innovation Roles

- Identified applicable emerging technologies (ICT and AI) and integrated into solving low productivity of low-resourced communities (farmers).
- Undertook problem-solving oriented research using advanced data Science techniques, 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.
- As principal investigator (PI) developed and oversaw a collaborative international AI research project collaborating with 3 universities.

Project management and Leadership Roles

- Led and managed a team of 5 people to execute project that led to 5+ publications, 10+ conference presentations, and grant funding
- Organized and supervised a team of 10+ annually during an international intercultural exchange program between Japan and Tanzania which resulted into strong partnership between two universities.

MDUI., Tokyo

Jul 2019 – Mar 2021

Machine Learning / Project Manager (freelance)

- Consultation and strategic project management of the practical implementation of A.I. technology for various clients from various industry resulting into company improved production
- Mentoring local and international company data science team on adopting A.I skill sets achieved through training and coaching resulted into companies securing data science projects
- Successfully managed offshore/remote machine learning projects resulting to successful deliverable and PoC of clients
- Used data science models such as anomaly detection, investigative analysis, prediction analysis, ensemble methods

iNet., Tokyo

Dec 2019 – Mar 2021

Data Science Consultant (freelance)

- Supported and spearheaded modules for building a Data Science team of company
- Training and mentored junior 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 team projects resulting to data science team pitching at 2+ venture competition.
- Facilitated in developing strategic partnership resulting to collaborative research
- Facilitated in planning and training 7 international intern from 2 national universities

Ministry RALG, Tanzania

Jan 2009 – Mar 2012

Project Manager / Irrigation Engineering - Land Use Planning***Irrigation, Land Use Planning Role***

- Successfully developed, surveyed, designed, and supervised 5+ irrigation projects summing up to USD 120,000 for the benefit of increasing food production for local farmers
- Initiated and developed 5+ new irrigation programs to improve irrigation agriculture locally resulting to increased production of 20+ villages
- Maintained and managed agricultural machinery and land Use Planning for Agriculture.
- 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

Project Manager – Food Security

- Post harvesting training on food storage to villages prone to hunger
- River basin management training in the district
- Evaluated hunger affected areas and planned for relief aid food distribution
- Overseeing the development and dissemination of technology for all product

Ministry of Agriculture., Tanzania

Jan 2007 – Dec 2008

Assistant Project Manager - Data Analyst /Socio-economic Analyst

- Data collection and socio-economic feasibility studies of potential +20 national irrigation projects that contributed to national irrigation master plan
- Planned and organized a team to carry out socio-economic analysis of +20 national irrigation schemes
- Strategical plan survey target area.

Education

Tokyo University of Agriculture, Tokyo Mar 2021

Ph.D., in Agricultural Engineering – Applied Data Science Information

Tokyo University of Agriculture, Tokyo Mar 2018

MSc., in Agribusiness Management – Information Management

Tokyo University of Agriculture, Tokyo Mar 2016

B.S., in International Agricultural and Food Studies

Selected Publications

Selected Publications, article found in Google scholar

Affiliations, Rewards & Hobbies

- 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. 2% Acceptance rate
 - Initiative Research Project of Graduate School, Awarded by Tokyo University Research Institute.
 - Tokyo University of Agriculture International Scholarship.
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LANGUAGES

Japanese: Fluent

English: Native

Kiswahili Native