REMY DUKUNDANE

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SUMMARY

Machine Learning and Data Science profession with strong foundation in data analysis, predictive modelling, and software development. I am proficient in Python, SQL, Java and machine learning frameworks such as Scikit learn, TensorFlow and PyTorch. Passionate about transforming data into actionable insights and solving complex real-world challenges. I am always looking for opportunities to apply skills, study, and grow while contributing to meaningful advancements in technology and society

EDUCATION

Master of Science in Information Technology **August 2024 - May 2026**
Carnegie Mellon University, Africa
Specializations: Applied Machine Learning & Data science

Bachelor of Science in Information Technology **May 2021 - November 2024**
Adventist University of Central Africa (AUCA), Kigali, Rwanda
Specializations: Software Engineering

PROFESSIONAL EXPERIENCE

Machine Learning Engineer **June 2025- May 2025**
GLOBEDOCK ACADEMY, ETHIOPIA

- Collaborated with Machine Learning teams to develop a personalized course recommendation system aimed at enhancing student learning experiences

Software Engineer **January 2024 - August 2024**
RWANDA REVENUE AUTHORITY, RWANDA

- Led a team of interns and contributed to building an online EBM Application Portal, improving efficiency in taxpayer applications.
- Developed a data pipeline to analyze EBM machine applications, extracting insights using SQL and Pandas.

Software Engineer
CONNECTIFY AFRICA **March 2022 - Jan 2024**

- Worked with other developers to build different web and desktop applications.
- Used SQL to work with databases, including creating tables, writing queries, and managing data.
- Tools & Software: Java, Python and PL/SQL

PROJECT WORK

Facial Emotion Recognition

- Tools & Software: PyTorch, CNN
- Built Deep learning using CNN pretrained model (resnet, efficientNet) to recognize emotions on human faces

Image captioning model

- Tools & Software: PyTorch, CNN, LSTM
- Built a Deep learning which captions different images using Encoder-Decoder architecture.

Potato Diseases Classification

- Tools & software: TensorFlow, python, CNN
- Built a Deep learning model to classify the potato diseases based on the leaf, I used TensorFlow and Convolution neural networks

Brain Tumor Classification using MRI Scans

- Tools & software: PyTorch, CNN, Deep Learning, Pandas, NumPy.
- Constructed a system classify brain tumors using MRI scans images using deep learning and convolutional neural networks.

Breast Cancer Prediction

- Tools & Technologies: Python, Pandas, Django, Matplotlib, Machine Learning.
- Built a machine learning model to predict breast cancer likelihood.
- Applied logistic regression and decision trees for predictive modelling.
- Performed feature engineering and selection to improve model performance.

Kaggle Competitions

- Titanic: Applied logistic regression and learning methods to predict passenger survival.
- Frame Speech Recognition: Join competition to develop a speech recognition model leveraging deep Artificial Neural Networks.
- Image Recognition and Verification: Joined competition to construct an image classification and verification model leveraging convolutional neural networks (CNNs).
- Automatic Speech Recognition (ASR): built a model for speech recognition using Recurrent Neural Networks (RNN) and Long Short-Term Memory LSTM.
- Automatic Speech Recognition: participate in competition to build model of recognising speech using encoder-decoder transformers architecture and tokens

Health Guard

- Tools & software: Java, Spring Boot, React Js, JavaScript.
- Developed systems help in monitoring and treatment of Non-Communicable Diseases (NCDs) patients.
- Integrated data visualization dashboard to track patient progress and treatment adherence.

Patient Management System

- Tools & software: Java, Servlets, Spring Boot, React JS.
- Created a system for Adventist Dental Clinic Town to manage patient data securely.
- Implemented database optimization techniques for faster patient records retrieval.

TECHNICAL SKILLS

- Programming & Data Analysis: Python, Java, Spring boot, Pandas, NumPy, TensorFlow, PyTorch.
- Database: SQL (PostgreSQL, MySQL).
- Data Visualization: Power BI, Matplotlib, Seaborn.
- Big Data Technologies: Spark.
- Cloud & Deployment: Docker, Google Cloud Platform.
- Machine Learning & Analytics: Supervised & Unsupervised Learning, Predictive Modeling & Classification, Time-Series Analysis.
- Deep Learning: Neural Networks, CNN, RNNs, LSTMS, Diffusion Models, GANs and Transformers.
- Tools & Software: Jupyter Notebook, Google Colab, VS Code, Git.

CERTIFICATIONS

- Optimizing machine learning models in Python- DataQuest (2025)
- Deep learning for Computer Vision- World Quant University (2025).
- Data Analysis and Visualization - Dataquest (2025).
- Advanced Data Cleaning - Dataquest (2025).
- Deep learning in TensorFlow - Dataquest (2024).
- Applied Data Science - World Quant University (2023).
- Introduction to Data Science - Cisco Academy (2024).

INTERESTS

- Engaging in Data Science Communities and Discussions.
- Joining Online Data Science Challenges and Hackathons.
- Attending Webinars and Conferences on AI and Machine Learning.
- Learning and Growing in a Collaborative Environment.
- Applying Machine learning and Data Science Skills to Real-World Problems.
- Collaborating in Cross-Functional Projects.
- Contributing to Open-Source Data Science Projects.