David Elvis Kombo

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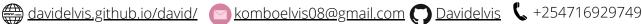## ABOUT ME

I am a Machine learning Engineer with experience in many fields of machine learning and data science such as anomaly detection, text to speech translation, reinforcement learning, and natural language processing, developing methods/pipelines to analyze, model and get insights from all types of data while also visualizing the results from the models created.

As a data scientist, I was also involved in developing tools and frameworks to help in boosting other data scientists' productivity.

I'm also motivated by challenges and believe that a new problem is always an opportunity to learn and discover new solutions.

Professionally, I aim to become a personal and technical reference for my colleagues and those who are beginning in the field, while also positively impacting as many people as possible with my work.

EXPERIENCE

Kunumi   **Belo Horizonte MG - Brazil**
Machine learning engineer | March 2021 - present

Kunumi company distributes the benefits of Artificial intelligence by sharing knowledge and responsible development of emerging technologies.

- Built template pipelines of suggested workflows, which can be fine-tuned to the specific needs of a project
- Implemented Nodes of common pipeline operations, such as cross-validation and feature extraction
- Implemented Timeseries methods that use the standard Scikit-learn API for easier understanding and adoption
- Researching to create content on Reinforcement learning subject

TraitsAI   **San Diego, California - USA**
Machine learning Intern | November 2020 - March 2021

Traits AI is a conversational AI company that creates Crowd-Sourced AI

- Tweaked already developed machine learning algorithms to perform tasks that assist and inform the development of conversational AI,[Fastspeech2, MB-MelGAN, MelGAN, Parallel WaveGAN]
- Researched existing technology related to speech style transfer speech synthesis that enables the production of high-quality audio files that mimic a target actor's voice and speech style.
- Trained, evaluated, and optimized the Fastspeech2 model to produce real-time audios of a target actor that matches their speech style.

Omdena   **New York, NY - USA**
Junior Machine learning engineer | November 2020 - Feb 2021

Omdena is the collaborative platform to build innovative, ethical, and efficient AI and Data Science solutions to real-world problems.

- A project with the World Resources Institute, Code For Africa, and collaborators from Stanford University to leverage #AI to map land ownership to boost Kenya's efforts to restore degraded land in an equitable way
- Built a Name Entity Recognition model (Spacy, Transformer), for entity identification from gazettes and court documents
- Carried out Graph-powered investigative journalism, by using NetworkX and Neo4j to build Knowledge graphs (KG), the graph was labeled property graph representing different entities (nodes) and relationships (edges) identified on land-related legal documents and possible networks and subnetworks that arises from them.
- Geo-tagging network data & making it easily accessible to social-activists, journalists.

EDUCATION

Jomo Kenyatta University of Agriculture and Technology   **Kenya**
Bachelor of Pure and Applied Mathematics | 2017 to 2021

- Specialization Computational mathematics

AI Centre of Excellence (AICE)   **Nairobi, Kenya**
                                                                  | Dec 2020 to May 2021

AI Centre of Excellence provides training to produce highly trained expert AI and ML Engineers.

- For three months, took part in intensive online training with the full range of competencies, required to become a job-ready ML/AI engineer.
- Participated in the final project of training, evaluating, and optimizing a deep learning model to classify different types of fish.

10 Academy   **Germany**
                                                                  | July 2020 - Oct 2020

10 Academy intensive training gets African undergraduates ready for global careers in the 4th Industrial Revolution in 3 months.

- Graduated among the top 3% of all talent that applied for the program
- Worked on different projects weekly and sharpened my skills in Statistics and machine learning modeling, data acquisition and cleaning, exploratory data analysis, value extraction, data visualization as well as exposure while competing on platforms such as Zindi(Africa) and Kaggle(Worldwide).
- Led a team of five in doing a research project on the impact of Covid-19 restrictions on Food quantity and quality, through this I upgraded my leadership and teamwork skills
- Learned non-technical skills e.g communication through daily stand-ups, Decision making, problem-solving

SKILLS

- Programming languages(Python, Java, SQL)
- Time-Series Analysis (modeling, feature engineering, evaluation)
- Anomaly Detection (unsupervised, semi-supervised, and supervised methods)
- NLP (feature engineering + statistical methods and deep learning)
- Reinforcement Learning (Actor-critic, Deep Q-Learning)
- Deep Learning (Keras, PyTorch, recurrent and convolutional networks, pre-trained models)
- Statistical Learning (Gradient Boosting, classification, regression, and clustering methods)
- Explainability, interpretation, and causality for machine learning
- Deployment frameworks (flask, streamlit, mlflow)
- AWS (ec2, s3,), GCP (Using VMs and deep learning tools)
- Containerization (Docker, Kubernetes)
- Relational Databases (MySQL, SQLServer,)
- Software engineering (Agile methodology, testing, Version control)
- Project Management (Reporting and documentation, remote collaboration tools, Design thinking)
- Distributed data management (Spark, MapReduce,Apache Stream)

INTERESTS

- Meditation
- Volleyball
- Cycling