Elvis David

Machine Learning Engineer, MLOps Engineer

A Machine learning engineer with experience in creating data pipelines using DVC, Apache Spark, and Pachyderm, feeding into machine learning and deep learning models (GANs, RNNs, CNNs, LSTMs), running orchestration and workflow pipelines using Kubeflow, prefect and Kedro, deploying using CircleCI and Jenkins, monitoring using Fiddler and Neptune, and maintaining solutions in production.

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WORK EXPERIENCE

Machine Learning Engineer
Kunumi

03/2021 - Present   *Belo Horizonte - Brazil*

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

Achievements/Tasks

- Developing a process-oriented data platform that behaves like a traditional database and automatic prediction engine that is to help businesses save billions by answering questions from data.
- Helped a client company to save 10% of its expenses using reinforcement learning to predict, allocate and direct tug boats used for towing cargo ships.
- Improved the delivery of projects by internal data scientists 3x faster by building template pipelines that were fine-tuned to specific projects.

Machine Learning Intern
TraitsAI

11/2020 - 03/2021   *San Diego CA - USA*

Achievements/Tasks

- Tweaked already developed ML algorithms to perform tasks that assist and inform the development of conversational AI, [Fastspeech2, MB-MelGAN, MelGAN, Parallel WaveGAN].
- Trained, evaluated, and optimized the Fastspeech2 model to produce real-time audios of a target actor that matches their speech style.

Junior Machine Learning Engineer
Omdena

11/2020 - 02/2021   *New York NY - USA*

Achievements/Tasks

- Built a Knowledge Graph of land ownership in Kenya, which boosted the efforts to restore degraded land.
- Built a Named Entity Recognition model (Spacy, Transformer), for entity identification from gazettes and court documents.
- Geo-tagged network data which made it easily accessible to social activists, and journalists.

EDUCATION

B.Sc in Pure and Applied Mathematics
Jomo Kenyatta University of Agriculture and Technology

09/2017 - 06/2021

SKILLS

Python   Google Cloud   SQL   TensorFlow

Pytorch   Kubernetes   Docker   Kafka

Spark   Kubeflow   Git   Bash   AWS

DVC   MapReduce

PERSONAL PROJECTS

Data Augmentation using M-BIGAN in Network Intrusion Detection Systems

- The goal of the project is to deal with the class imbalance problem of cyber attacks in network intrusion detection systems.
- Built M-BIGAN model which generates more data for the minority classes. The model has multiple generators which help to cover the whole data space and by this, it attains more accuracy than the standard BIGAN.

Speech Recognition project

- The goal of the project is to build a robust and accurate deep learning model that will transcribe a speech-to-text for the Swahili language and deploy the model as a skill to Amazon Alexa since it doesn't support the language.
- Performed data pre-processing such as standardizing the sampling rate, resizing wave files to the same length, data augmentation by applying time shift, extracted features such as spectrogram, and acoustic modeling.
- Built a deep learning model(RNN) to convert speech to text, performed hyper-parameter tuning and tracked the different versions of the model and performance using MLFlow, and evaluated the models using Word Error Rate (WER).

ACHIEVEMENTS

Google Cloud Certification
Completed Google Cloud training to have fundamental understanding of IT services and their uses in Google Cloud and demonstrated cloud fluency and foundational Google cloud knowledge

COURSERA, Machine Learning Engineering for Production(MLOps)
Attained a certificate in MLOps course offered on coursera by Deeplearning.AI , The scope of the course included Project Scoping and Design, workflow orchestration, maintaining and monitoring a continuously operating production system