Mark Asare

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About me:

TensorFlow || **Keras** || **Python** || **Apache Spark** || **NLP** || **Deep Learning** || **GIT** || **Django**

● WORK EXPERIENCE

07/2022 – CURRENT – California, United States
SENIOR DATA SCIENCE QA ENGINEER (REMOTE) – FRIENDLY HEALTH TECHNOLOGIES LLC

- Building testing services for deployed models
- Using Jenkins for software testing
- Model evaluation analyses and presentation of these analyses
- Collaborating with other team members using GIT
- Automating model testing and getting daily test results via Slack channels.

11/2021 – CURRENT – Florence, Italy
NLP AND DEEP LEARNING ENGINEER – BINOOCLE

- Deep Learning (LSTM, GRU, CNN, MLP, Ensemble Methods) and traditional machine learning (SVM, Logistic Regression, Decision Trees, Random Forests, Polynomial and Linear Regression) model training, evaluation and inferencing using TensorFlow, Keras and PyTorch
- Big data processing using Apache Spark
- NLP tasks using Spacy, NLTK and Genism
- Building Speech Emotion Recognition (SER) models
- Performing Latent Semantic Analysis (LSA)

01/2021 – 30/06/2021 – Amsterdam, Netherlands
NATURAL LANGUAGE PROCESSING RESEARCHER – NEOSOUND INTELLIGENCE B.V.

- Trained Deep Learning models for the solution of Natural Language Processing (NLP) problems (Tacotron2 (text-to-speech model); punctuator2 (a bidirectional RNN model to automatically punctuate unstructured text); NEMO (a BERT punctuation and capitalization model to automatically punctuate and capitalize unstructured text data)
- Performed theoretical research and provided practical solutions development for signal processing and AI problems
- Identified noise in speech data, reduced noise, and separated channels on speaker dependent (multiple speaker) speech data
- Performed sentiment analysis on speech-to-text output for clearer understanding and classification of customers' experience (customer experience optimization)
- Evaluated the performance of Deep Learning models and selected the most robust model based on the performance
- Selected features for deep learning models to improve learning
- Mined and pre-processed text data for model training and evaluation

06/2014 – 08/2017 – Accra, Ghana
RESEARCH ASSISTANT – GABS RESEARCH CONSULT LIMITED

- Predicted the probability of loan default of customers for financial institutions using R
- Evaluated the conceptual soundness of models and conducted tests to ensure assumptions are satisfied

- Used R to collect historical data and built a trend analysis sales and revenue forecast for sales companies
- Led the data entry team and addressed all their software-related complaints
- Designed data entry set-ups and wrote meaningful logic procedures for the data entry team
- Translated quantitative analysis into summary reports by creating pivot charts and dashboards to facilitate decision making
- Used slicers and timeliness to filter data in Microsoft Excel
- Wrote analytical reports for publications

EDUCATION AND TRAINING

10/2018 – 10/2021 – Turin, Italy
MASTER OF SCIENCE IN STOCHASTICS AND DATA SCIENCE – Univerità degli Studi di Torino

Address Turin, Italy

09/2011 – 05/2016 – Accra, Ghana
BACHELOR OF ARTS IN ECONOMICS AND STATISTICS – University of Ghana

Address Accra, Ghana

LANGUAGE SKILLS

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
ITALIAN	B1	B1	A2	A2	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Experiments and Comparison of Digital Twinning of Photovoltaic Panels by Machine Learning Models and A Cyber-Physical Model in Modelica

2021
https://ieeexplore.ieee.org/abstract/document/9525233

PROJECTS

MSc. Thesis: Performance improvement of Automatic Speech Recognition (ASR)