Jama Hussein Mohamud

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Education

AIMS (African Institute for Mathematical Sciences) Kigali, Rwanda October 2019 – September 2020
African Master's in Machine Intelligence (AMMI)

- Recipient of the Google & Facebook scholarship

Anadolu University, Eskisehir, Turkey, GPA (3.8/4.0) September 2016 – October 2019

- Recipient of Turkish Government Scholarship
- MSc., Electrical & Electronic Engineering

Research Thesis: *A machine learning approach to estimation and classification of poverty levels*

Gollis University, Hargeisa, Somaliland, GPA (3.99/4.0) November 2012 – September 2015

- BSc., Telecommunication Engineering
- **University Honor**: (President list - 9 semesters)

Professional Experience

AIMS (African Institute for Mathematical Sciences) Kigali, Rwanda
Researcher / Teaching assistant December 2020 - Present

- Working on unsupervised deep learning methods
- Aiding AMMI students with machine learning courses by facilitating tutorials, writing scripts, grading

Bilisim Vadisi, Gebze, Turkey
Machine Learning Engineer January 2019 – October 2019

- Developed face recognition system that utilized Multi-task Cascaded Convolutional Networks (MTCNN) to detect faces in images and a unified embedding for face-recognition & clustering (FaceNet) to extract face features
- Developed a system for Ford that automatically checks if there are misplaced, missing or extra objects on the car board
- Developed real-time object detection systems for tracking, detecting defects, and OCR

Anadolu University, Eskisehir, Turkey
Researcher February 2018 – January 2019

- Created a vision-based system to recognize sign-language gestures from video sequences
- Implemented Seam carving algorithm that adaptively resizes the images without losing/distorting the content of the images
- Implemented Edge Detection and Hough Transform algorithm to detect the vanishing points in the image
- Proposed and implemented new method that analysis the causality of poverty

Projects

- Built ASR system based solely on unsupervised approach for 3 low resource languages spoken in Africa
- Implemented various NLP algorithms for language modelling, sentiment analysis, and machine translation
- Developed kernel methods to predict whether a DNA sequence region is binding to a specific transcription factor
- Implemented very deep convolutional neural networks for raw audio classification
- Implemented object tracking algorithm by estimating the trajectory of objects in a sequence of frames

Technical Skills

Programming Languages: Python (Expert), C++ (Proficient) **Cloud Computing**: Google Cloud, AWS
Frameworks/Libraries/Operating Systems: TensorFlow, PyTorch, OpenCV, Linux, Git **Databases:** SQL, Solr

Scientific Papers & Conferences

- Poverty Level Characterization via Feature Selection and Machine Learning
  - *Presented at IEEE signal processing and communications applications conference (SIU/Turkey)*

References

- Available upon request