Jama Hussein Mohamud

jmohamud@aimsammi.org |https://engmubarak48.github.io/jmohamud/

Education

African Master's in Machine In Intelligence (AMMI, AIMS) Kigali, Rwanda October 2019 – September 2020

- MSc., Machine Intelligence (AMMI)
- Recipient of the Google & Facebook scholarship

Research Thesis: Privacy preserving representations Learning

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)

Research Thesis: Implementation and design of line follower robot

Professional Experience

AIMS (African Institute for Mathematical Sciences) Mbour, Senegal

Researcher / Teaching assistant December 2020 - Present

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

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 a new method that investigates 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

Soft skills: Good Debugger, Good problem solver, Fast learner **Coding:** Python (Expert), C++ (Proficient), Java (Proficient)
DevOps: Linux, Cloud, Docker, Git **ML:** TensorFlow, PyTorch, OpenCV, SciKit **Databases:** SQL, Solr

Scientific Papers & Conferences

- Fast Development of ASR in African Languages using Self Supervised Speech Representation Learning (*EACL 2021*)
- Poverty Level Characterization via Feature Selection and Machine Learning (*IEEE SIU*)

References

- Available upon request