

Jama Hussein Mohamud

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Education

African Institute for Mathematical Sciences (AIMS) Kigali, Rwanda October 2019 – September 2020

- MSc., Machine Intelligence (AMMI) supervised by *Dr. Moustapha Cisse*
- [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

- MSc., Electrical & Electronic Engineering supervised by *Prof. Dr. Omer Nezh Gerek*
- [Recipient of Turkish Government scholarship](#)

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

Publications

- *J. H. Mohamud; U. Paquet, W. Brink.* Pretraining works, why, and when? (under review)
- *J. H. Mohamud; M.Y. Fuge, M. Cisse.* Self-supervised private representation learning (under review)
- *J.H. Mohamud, L. A. Thompson, A. Ndoye, L. Besacier.* Fast Development of ASR in African Languages using Self Supervised Speech Representation Learning ([EACL 2021](#))
- *J. H. Mohamud; O. N. Gerek.* Poverty Level Characterization via Feature Selection and Machine Learning ([IEEE SIU 2019](#))

Work & Teaching Experience

AIMS (African Institute for Mathematical Sciences) Mbour, Senegal

Researcher / Teaching assistant

December 2020 - Present

- Working on privacy-preserving representations Learning
- Aiding AMMI students with machine learning courses by mentoring, facilitating tutorials, and writing coding scripts

Neuromatch Academy Deep Learning Summer School, Online, USA

Project Teaching assistant

July 2021 - August 2021

- Prepared two projects for over 100 students participating in the summer school program, [\[project 1\]](#), [\[project 2\]](#), [\[slides\]](#)
- Supervised 8 groups (undergraduate and graduate students) consisting of 3-10 members on their projects

Bilisim Vadisi, Gebze, Turkey

Machine Learning Engineer

January 2019 – October 2019

- Built real-time tracking system for car plate detection and recognition
- 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 an algorithm that adaptively resizes the images without losing/distorting the content of the images [\[GitHub\]](#)
- Implemented Edge Detection and Hough Transform algorithm to detect the vanishing points in the image [\[GitHub\]](#)

Somtel International LTD, Hargeisa, Somaliland

Software Engineer

March 2014 – September 2015

- Tested and evaluated servers to check the efficiency, reliability, and compatibility with other systems
- Configured switches and routers to build fully functional network systems

Open Source Projects

- Developed a fully functioning face recognition system that is currently used by many industries, [\[GitHub\]](#)
- Implementation of SAINT (Improved Neural Networks for Tabular Data via Row Attention and Contrastive Pretraining) [\[GitHub\]](#)
- Developed kernel methods to predict whether a DNA sequence region is binding to a specific transcription factor [\[GitHub\]](#)

Technical Skills

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

References

- Available upon request