

EBASA G. TEMESGEN

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EDUCATION

Doctor of Philosophy in Computer Science
University of Minnesota - Twin Cities

2022 - In progress
Minneapolis, MN

BSc. Electrical and Computer Engineering
Addis Ababa University

2016 - 2020
Addis Ababa, Ethiopia

EMPLOYMENT

Safaricom Ethiopia
Lead QA Engineer

04/2022 - 08/2022
Addis Ababa, Ethiopia

RESEARCH INTERESTS

Artificial Intelligence, Machine learning, Deep learning, Robotics, Intelligent Agents, Distributed Systems, Robotics, Computer Vision, intelligent Transportation systems, Swarm Robotics

RESEARCH EXPERIENCE

The University of Auckland, Empathic Computing Lab
Research Intern

04/2021 - 12/2021
Auckland, New Zealand

I worked on a machine learning model that analyzes changes in physiological signals in response to various emotional stimuli. I prepared Literature reviews, analyzed multiple datasets, and prepared and presented reports.

University of Michigan
Remote Research Intern

07/2019 - 08/2020
Ann Arbor, MI

Worked on bottlenecks analysis and Identification of Reinforcement Learning on Execution time, cache hit rate, CPU core usage, and overall memory usage—performance Comparison of different RL algorithms on frameworks and libraries in different CPU architectures.

TEACHING EXPERIENCE

University of Minnesota
CSCI 4061 Introduction to Operating Systems

08/2019 - In Progress
Minneapolis, MN

- As a Graduate Teaching Assistant, led recitation, prepared Lab exercises, and quizzes, graded assignments, prepared projects and graded projects, and graded exams.

Col. John C Robinson Addis American
Hardware programming

06/2019 - 09/2019
Addis Ababa, Ethiopia

- Taught hardware programming using C-Language, interfacing sensors with a microcontroller, and how to simulate circuits on proteus for high school and college students.

PUBLICATIONS

1. Saffaryazdi, N., Goonesekera, Y., Saffaryazdi, N., Hailemariam, N. D., Temesgen, E. G., Nanayakkara, S., Broadbent, E., & Billingham, M. (2022). *Emotion recognition in conversations using brain and physiological signals*. 27th International Conference on Intelligent User Interfaces, 229–242, DOI: 10.1145/3490099.3511148 [[LINK](#)]
2. Etori, Naome, Ebsa Temesgen, and Maria Gini. "What We Know So Far: Artificial Intelligence in African Healthcare." arXiv preprint arXiv:2305.18302 (2023). [[LINK](#)]

MEMBERSHIP

- **BLACKINAI** member
- **SHAPHEPREDS LAB** member
- **ETHIOPIAN SPACE SCIENCE SOCIETY** member

HIGHLIGHTS OF PROJECT EXPERIENCE

Capstone Project- Multi-UAVs for Precision Agriculture, Addis Ababa University, 2020

- Developed a program in ROS to implement path planning using Multiple UAVs, to capture, and analyze data from agricultural fields.
- Designed a deep learning model to analyze the collected data, and use a browser application to present for the user via an interactive dashboard.

SKILLS & RELEVANT COURSES

- **Programming Languages:** C/C++, Python, Matlab, Java, SQL, R, CSS, Javascript
- **Frameworks:** Pytorch, TensorFlow, ROS, Bootstrap, Django, React
- **Databases:** SQL, MySQL
- **Machine Learning Algorithms:** Regression, Naïve Bayesian, K-means, Clustering, Decision Trees, Linear Optimization, Prediction, Forecasting- Data cleaning tools: OpenRefine
- **Relevant Certifications:** Microsoft Azure Fundamentals, HPE ATP - Hybrid IT Solutions
- **Languages:** English (Professional), Amharic (Native), Afan Oromo (Native), ASL (Intermediate)