

Personal Information

Single / Male /

10.12.1999

Marital Status / Gender / Date of Birth

Ethiopia / Metekel

Country of Birth / City of Birth

Identity Card /

3158410814905762 / -

Type of your ID / ID Number / Passport Number

-

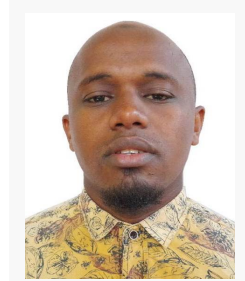
Other Citizenship

Islam

Religious Belonging, Ethnicity

I dont have any disability.

Disability Status



Education Information

High School Information (Graduate)

ENZI PRIMARY AND SECONDARY SCHOOL /General High School /Science/Natural Sciences

School / High School Type / Major field of your education

Ethiopia / Asosa

Country / City

Secondary Education / 100 / 95.25

Educational Stage / Grade Type / Grade

04/09/2017 - **30/06/2019**

Start date / Graduation Date

School / 2

Field of Achievement / Achievement Rank

I got university admission exam result.

Ethiopian Higher Education Entrance Examination (EHEEE / Genel / 100 / 67.28 / 01/07/2019

Exam / Field of Achievement / Grade / Date

4 / 1

Level of Achievement / Achievement Rank

Undergraduate (Continues)

ADAMA SCINCE AND TECHNOLOGY UNIVERSTY / SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES (SEECs) / **Computer Science**

University / Faculty/Graduate School / Department

Ethiopia / East Shewa

Country / City

4 / 3.58

Grading System / Grade

01/10/2019 - **02/07/2024**

Start date / Graduation Date

I also have a major degree in the field of Electronics and Communication engineering.

Minor Field (if applicable)

I also have a major degree in the field of Electronics and Communication engineering.

If you have studied in a different field as minor area, please specify the name in the field below.

Preferences

- KONYA TECHNICAL UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / **Artificial Intelligence /**
Konya / Türkçe / 2



- ANKARA UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Artificial Intelligence (English) / Ankara / İngilizce / 2
- FATİH SULTAN MEHMET VAKIF UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Artificial Intelligence and Data Engineering / İstanbul / Türkçe / 2
- İSTANBUL AYDIN UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Artificial Intelligence and Data Science / İstanbul / İngilizce / 2
- MUĞLA SITKI KOÇMAN UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Artificial Intelligence / Muğla / Türkçe / 2
- MIDDLE EAST TECHNICAL UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Computer Engineering / Ankara / İngilizce / 2
- İSTANBUL SABAHATTİN ZAİM UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Computer Science And Engineering / İstanbul / İngilizce (%30) / 2
- GAZİ UNIVERSITY / INSTITUTE OF INFORMATICS / Computer Sciences / Ankara / Türkçe / 2
- DOKUZ EYLÜL UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Computer Sciences / İzmir / İngilizce (%30) / 2
- İSTANBUL TECHNICAL UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Computer Sciences / İstanbul / Türkçe / 2
- KOÇ UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Computational Sciences And Engineering / İstanbul / İngilizce / 2

Other Language Skills Native Language : Amharic (□□□□)

No

Do you speak Turkish?

Language	Grade/Level
Arapça	- / Intermediate
İngilizce	- / Advanced

Letter of Intent

Academic and Social Experiences: During my undergraduate studies at Adama Science and Technology, I had the opportunity to specialize in both Computer Science and Electronics and Communication Engineering, earning a dual degree. This multidisciplinary background has equipped me with a solid foundation in various aspects of technology and engineering. My academic journey has allowed me to develop critical thinking, problem-solving skills, and a strong analytical mindset. Moreover, my passion for the field of Artificial Intelligence led me to pursue additional studies in Data Science at ALX Africa. This program has provided me with valuable insights into the world of data analytics, machine learning, and AI, further fueling my enthusiasm for the subject. Through practical projects and collaborations, I have gained hands-on experience in applying data science techniques to solve real-world problems. Reasons for Choosing Turkey: I am particularly drawn to Turkey as a study destination due to its remarkable advancements in the field of technology and its commitment to academic excellence. Turkey is renowned for its world-class universities and research institutions that offer cutting-edge programs in various disciplines, including AI. The country's emphasis on innovation, coupled with its vibrant culture and historical significance, creates a dynamic environment that fosters intellectual growth and cross-cultural understanding.

In this section, it is expected to explain following details: your academic and social experiences relating the field you want to take an education, your reasons for choosing Turkey for study and the importance of your future plans for your education and scholarship in Turkey.

Exploring the Role of AI in Advancing Amharic Sign Language Communication: A Pathway to Accessibility and Inclusivity.

1- Subject of study

What are the practical implications of integrating AI in Amharic Sign Language communication for individuals with hearing impairments?

2- Research Question (Up to 15 words)

My study revolves around the use of AI technologies to enhance Amharic Sign Language communication, with a focus on addressing the challenges and improving accessibility and inclusivity within the Amharic Sign Language community. Amharic Sign Language is a unique visual-gestural language used by the deaf and hard-of-hearing community in Ethiopia. The central problem lies in the limitations and barriers faced by Amharic Sign Language users in their communication with the broader society. Traditional communication methods, such as interpreters or written translations, can be time-consuming, costly, and may not always be readily available. This restricts the ability of Amharic Sign Language users to fully participate in various aspects of life, including education, employment, healthcare, and social interactions. The proposed solution involves leveraging AI technologies to develop accurate and efficient sign language recognition and translation systems specific to Amharic Sign Language. By training AI models on annotated sign language datasets and employing machine learning and computer vision techniques, it is possible to create real-time interpretation systems that can bridge the communication gap between Amharic Sign Language users and non-sign language users. The concept map for this study includes three main components: Amharic Sign Language users, AI technologies, and improved accessibility and inclusivity. Amharic Sign Language users represent the target group whose experiences, challenges, and perspectives will be examined. AI technologies encompass the development of AI models and systems for Amharic Sign Language recognition and translation. Improved accessibility and inclusivity reflect the desired outcomes of the study, aiming to empower Amharic Sign Language users by enabling effective communication with the wider community. By exploring the intersection of these components, the study seeks to gain insights into the potential of AI technologies to enhance Amharic Sign Language communication and contribute to overcoming the existing barriers. The analysis will involve qualitative examination of user experiences, as well as quantitative evaluation of the performance and effectiveness of AI models. The findings will inform the development of innovative solutions and best practices to advance Amharic Sign Language communication, ultimately fostering greater accessibility and inclusivity for the Amharic Sign Language community.

3- Analysis of the Problem (at least 75, maximum 300 words)(In this section, briefly describe the topic and your theory (concept map) to be used in the study.)

This study on the role of AI in advancing Amharic Sign Language communication will employ a combination of qualitative and quantitative research methods to gather comprehensive and meaningful data. The following research methods will be utilized: Literature Review: A thorough review of existing literature, research papers, and scholarly articles related to AI technologies in sign language recognition and translation will be conducted. This will help establish a theoretical framework, identify research gaps, and inform the research design. In-depth Interviews: In-depth interviews will be conducted with Amharic Sign Language users, AI practitioners, and professionals in the field. These interviews will provide valuable insights into their experiences, challenges, and perspectives on AI's potential for enhancing Amharic Sign Language communication. The interviews will be audio-recorded and transcribed for qualitative analysis. Observations: Direct observations of Amharic Sign Language interactions and communication scenarios will be conducted. This will involve observing sign language users in natural settings or controlled environments to gain a deeper understanding of their communication patterns, gestures, and expressions. Surveys: Surveys will be distributed to a representative sample of Amharic Sign Language users, AI experts, and professionals. The surveys will gather quantitative data on their perceptions, attitudes, and experiences regarding the use of AI technologies in Amharic Sign Language communication. Statistical analysis will be applied to analyze the survey data and identify trends and patterns. AI Model Development: Machine learning and computer vision techniques will be employed to develop AI models specifically designed for Amharic Sign Language recognition and translation. This will involve training models on annotated sign language datasets and optimizing their performance through iterative refinement. User Testing: User testing sessions will be conducted to evaluate the effectiveness and usability of the developed AI models. Participants will interact with the AI system and provide feedback on its accuracy, ease of use, and overall performance. Ethical Considerations: Ethical guidelines will be strictly followed throughout the research process. This includes obtaining informed consent from participants, ensuring privacy

and confidentiality, and addressing any potential biases or sensitivities in data collection and analysis. The data collected through interviews, observations, and surveys will be analyzed using qualitative and quantitative analysis techniques. The findings will be synthesized to provide a comprehensive understanding of the role of AI in Amharic Sign Language communication and its potential for improving accessibility and inclusivity. The research methods employed in this study will contribute to advancing knowledge and practical applications in the field of AI-driven Amharic Sign Language communication

4- Research Method (minimum 50 maximum 300 words)"(Give information about the academic research methods you intend to use in this study. For example, in-depth interviews, observations, surveys, experiments, etc.) For example, in-depth interviews, observations, surveys, experiments, etc.)

Integrating AI technologies in Amharic Sign Language communication has the potential to enhance accessibility and inclusivity for the community. Developing AI models tailored to Amharic Sign Language can enable real-time interpretation, bridging the communication gap. This can improve education, employment, healthcare, and social integration. Challenges include dialect variations, cultural nuances, and dataset diversity. Ethical considerations and user acceptance are important. The preliminary findings indicate that AI technologies can revolutionize Amharic Sign Language communication, empowering users and fostering inclusivity. This study will provide insights for the development of AI solutions to enhance accessibility and inclusivity for the Amharic Sign Language community.

5- Preliminary Answer to the Research Question (at least 75, maximum 300 words)

As a Computer Science and Engineering graduate with a dual degree in Electronics and Communication Engineering, and applying for a Master's degree in the field of AI and Computer Science and Engineering, this study on the role of AI in advancing Amharic Sign Language communication is expected to make notable academic contributions: Interdisciplinary Integration: By combining knowledge from Electronics and Communication Engineering with AI and Computer Science, this study integrates multiple disciplines, enriching the research landscape. Advancements in AI Algorithms: The development and optimization of AI models tailored for Amharic Sign Language recognition and translation will contribute to the progress of AI algorithms. This research explores novel techniques for addressing the unique challenges of sign language interpretation, such as gesture recognition, spatial modeling, and temporal dynamics. Linguistic Diversity in AI: Focusing on Amharic Sign Language, a language with its own intricacies and cultural context, this study highlights the importance of considering linguistic diversity in AI research. It emphasizes the need to develop AI models that cater to specific languages and cultural nuances, promoting inclusivity and addressing the needs of minority language communities. Practical Applications: The findings of this study have practical implications for the development of AI-powered communication systems and assistive technologies. By enhancing Amharic Sign Language communication, these advancements can improve accessibility and inclusivity for individuals with hearing impairments, impacting various domains such as education, employment, healthcare, and social interactions. Future Research Directions: This study identifies research gaps and paves the way for future investigations in the field of AI and language communication. It provides a foundation for further research and advancements in AI-driven sign language recognition and translation, stimulating progress and innovation in the field. In General, as a Computer Science and Engineering graduate and prospective Master's student in AI and Computer Science and Engineering, this study's contributions lie in interdisciplinary integration, advancements in AI algorithms, addressing linguistic diversity, practical applications, and guiding future research in the field of AI and Amharic Sign Language communication.

6- Academic Contribution of the Study (minimum 75, maximum 300 words) (Explain how this study will contribute to your academic field.)

1. Isayas Feyera Olkeba and Hussien Seid Worku (2021) "Developing Amharic Sign Language Recognition Model for Amharic Characters Using Deep Learning Approach" The paper discusses the development of a model for recognizing Amharic Sign Language and converting it into Amharic characters using a convolutional neural network approach. The model is trained on datasets gathered from a teacher of Amharic Sign Language, and various steps such as frame extraction, labeling, annotation, XML creation, TFrecord generation, and model training are followed. The accuracy of the model is evaluated using Faster R-CNN and Single-Shot Detector techniques, with average accuracies of 98.25% and 96% respectively. The ultimate goal of the research is to create a complete system for recognizing Amharic Sign Language and facilitating communication between hearing-impaired individuals and the general population. 2. Netsanet Yigzaw ,Million Meshesha, and Chala Diriba (2022) "A Generic Approach towards Amharic Sign Language Recognition" discusses the development of a system for recognizing Amharic Sign Language, which is used by the hearing-impaired community in Ethiopia. The researchers aimed to create a digital text converter system that can translate sign language gestures into written text. The system utilized deep learning algorithms, including a pretrained model and Long Short-Term Memory (LSTM), to extract sequence information from image frames of sign language

gestures. The dataset used for training the models was collected from Addis Ababa University in video format, which was preprocessed through cleaning and segmentation into image frames. The models achieved an accuracy of 72.79%, with ResNet50 outperforming EfficientNetB0 in terms of precision and f1-score. The proposed system also included a graphical user interface prototype. The researchers suggested that the system could serve as a starting point for further improvement by incorporating high-quality training datasets and high-performance training machines. The document provides an introduction, a literature review on sign language and Ethiopian Sign Language (EthSL), and discusses the methods and results of the research.

7- Literature Review (at least 75, maximum 300 words)(Please write down the main academic sources written in this study area.)

My interdisciplinary education in both Computer Science and Engineering, as well as Electronics and Communication Engineering, has provided me with a strong foundation in technical knowledge and problem-solving skills. This diverse background has equipped me with a unique perspective and a holistic understanding of the intersection between AI, computer science, and communication systems. By combining my expertise in Electronics and Communication Engineering with my interest in AI and Computer Science, I am eager to contribute to the field of AI-driven language technologies, particularly in the context of Amharic Sign Language communication. This study on the role of AI in advancing Amharic Sign Language communication demonstrates my commitment to addressing the communication barriers faced by individuals with hearing impairments and promoting inclusivity. Furthermore, my undergraduate studies have instilled in me a rigorous academic approach, critical thinking abilities, and a strong research foundation. I have actively engaged in research projects and have developed strong analytical and problem-solving skills that I believe will be valuable for pursuing a Master's degree in AI and Computer Science and Engineering. I would like to emphasize my interdisciplinary academic background, combining Computer Science and Engineering with Electronics and Communication Engineering, as well as my passion for AI and its application in improving communication accessibility. I believe that this unique combination of skills and interests positions me well to contribute to the field and make meaningful academic contributions.

If you have a subject in your application documents that you think is not clear enough and you want to explain, or if you want to draw the attention of the evaluation committee, please briefly explain in this section.

Scholarship Programs

Soru : I hereby declare that I have fulfilled the requirements set out above and request that my application be assessed under the Merit Scholarship Programme.

☐ Yes ☒ No

Soru : I am not IsDB staff of any type of appointment (Including temporary and consultant) of the IsDB Group or not be a close relative of the aforementioned by blood or adoption with the term "close relative" defined as Mother, Father, Sister, Half-sister, Brother, Half-brother, Son, Daughter, Aunt, Uncle, Niece, or Nephew.

☒ Yes ☐ No

Soru : I would like to apply for the ISDB Scholarship Program in addition to the Türkiye Scholarships

☒ Yes ☐ No

Soru : I would like to apply for Türkiye Scholarships – NAMA Foundation Joint Scholarship Program besides Türkiye Scholarships Program.

☐ Yes ☒ No

Soru : I would like to apply for ASEAN Joint Scholarship Program besides Türkiye Scholarships Program.

☐ Yes ☒ No

Family Information **Total Monthly Income : 0-50 (\$)**

MARITU SUFYAN / Yes

Mother's Name / Is your mother alive?

-

The institution/company your mother works at

- / -

Your mother's occupation / Title/Position

KIBRET MUHAMED / Yes

Father's Name / Is your father alive?

-

The institution/company your father works at

- / -

Your Father's Occupation / Title/Position

6

Number of Siblings

Single

Marital Status

0-50 (\$)

Total Monthly Income

Contact Info (Current)

Bole road//

Street/Building Number/Door Number

- / East Shewa / - / 0000)

Address / City / Country / Postal Code

+251932750178

Phone (Home)

+251932750178

Mobile Phone

-

Purpose of your stay in this country

5 I am at this address.
- Metekel / Ethiopia / 0000

Address / City / Country / Postal Code

- / - / http://www.linkedin.com/in/ali-kibret

Facebook / Twitter / LinkedIn

Academic Qualification

Social Activities

Type	Name	Award, Project, Certificate Field	Date	Institution	Description
Certificate	Honorable Mention	Programming contests	22.09.2023	ICPC (International Collegiate programming contest)	The certificate that I received for participating in a programming contest held at our university is a regional contest that includes all universities in our nation
Certificate	Islamic Education Certificate	Islamic Education and Qur'an	12.06.2015	Awolia Islamic Center	This certificate signifies my successful completion and recognition of excellence in various aspects of Shari'a like Luga, Hadith, and Fiqih. However, it should be noted that it represents elementary education in Islamic studies within my academic curriculum and corresponding grade.

● Work Experience / Internship Experience

Internship Experience

ASTU ICT center / Maintenance and Support team / 2 Month

Company/Institution Name / Subject/topic of Internship / Duration of Internship

Internship Experience

ASTU / Machine Learning Team, in the development of quad dog robot. / 2 Month

Company/Institution Name / Subject/topic of Internship / Duration of Internship

● Academic Activities

● Information on Hobbies

I enjoy Computers, Science, and Technology. As someone dedicated to the world of technology, I aspire to apply my experience in the field of computer science. Moreover, I am passionate about AI and Data Science. In addition to that, I have a keen interest in books, particularly religious ones such as the Quran, Hadith, Fiqh, and History. These books guide me on how to live in accordance with my religious beliefs. When it comes to music, I find reciting and listening to the Quran to be extremely fulfilling. Furthermore, I appreciate Neshida and Sufy Menzuma.

> Computer > Science / Technology > Book > Music

● Special Talent Information

> Other > Cycling > Gymnastics > Other
> Other

● Voluntary Activities

● Reference Information

● Advisor Information

● Interview Location

Ethiopia / Addis Ababa

Country / City

● My Applications



You have no previous applications.

● Turkiye Experience

No

Are you in Turkey now or Have you ever been to Turkey ?

- / -

Start date / Graduation Date

-

Institution/organisation that provided the scholarship

No

Do you have a relative who is currently or was previously a holder of a Türkiye Scholarship?

What was the purpose of your stay in that country?

-

YU No (Foreign Number)

No

Have you ever received a scholarship from any institution or organisation in Turkey?

Another Web Site

Please specify how you learned about this scholarship?

No

Do you have any relatives living in Turkey?