

#### Personal Information

Single / Male / 10.12.1999

Other Citizenship

Marital Status / Gender / Date of

Country of Birth / City of Birth

Ethiopia / Metekel

Religious Belonging, Ethnicity

Identity Card / 3158410814905762 / -

> Type of your ID / ID Number / Passport Number

Islam 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 Secondary Education / 100 / 95.25 Educational Stage / Grade Type / Grade Country / City

04/09/2017 - 30/06/2019 School / 2

Start date / Graduation Date 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

Level of Achievement / Achievement Rank

### Undergraduate (Graduate)

ADAMA SCIENCE AND TECHNOLOGY UNIVERSITY / Electrical Engineering and Computing / Computer Science

University/Faculty/Graduate School / Department

Ethiopia / East Shewa 4/3.59

Country/City Grading System / Grade

24/09/2019 - **06/07/2024** Dual Major with Electronics and Communication Start date / Graduation Date

Engineering

Minor Field (if applicable)

### Dual Major with Electronics and Communication Engineering

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

### **Preferences**

MARMARA UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES



# / İstanbul / Türkçe / 2

- SÍVAS CUMHURÍYET UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Sivas / Türkçe / 2
- İSTANBUL TECHNICAL UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / İstanbul / Türkçe / 2
- YILDIZ TECHNICAL UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
   / İstanbul / Türkçe / 2
- KONYA TECHNICAL UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Konya / Türkçe / 2
- ISTANBUL TECHNICAL UNIVERSITY / INSTITUTE OF GRADUATE PROGRAMS / Istanbul / Türkçe / 2
- NECMETTÍN ERBAKAN UNIVERSITY / GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES / Konya / Türkçe / 2

# Other Language Skills Native Language : Amharic (አጣርኛ)

No Do you speak Turkish?	
Language	Grade/Level
Arapça	- / Intermediate
İngilizce	- / Advanced

### Letter of Intent

I have always been passionate about Data Science, AI, and Machine Learning, which is why I pursued a dual degree in Computer Science and Electronics & Communication Engineering at Adama Science and Technology University (ASTU). Throughout my studies, I have developed strong skills in data analysis, Python programming, machine learning, and problem-solving. Beyond my coursework, I have actively worked on real-world AI and data science projects. As an Academic Research Assistant, I contributed to research projects focused on automation, predictive modeling, and Al-driven solutions. I also completed a Data Science training at ALX Africa, where I worked on practical projects that involved data processing, visualization, and statistical modeling. Outside of academics, I have participated in the Ethiopian Collegiate Programming Contest (ECPC), which strengthened my problem-solving abilities. I also worked on Al-related projects, such as an Amharic Sign Language Transcription system, which used deep learning techniques to recognize Ethiopian sign language gestures. These experiences have helped me develop a deep understanding of Al applications and how they can be used to solve real-world challenges. Reasons for Choosing Turkey for My Studies - Turkey is one of the fastest-growing countries in Al, data science, and technology research. I want to study in Turkey because its universities offer strong AI and Data Science programs, advanced research facilities, and a growing technology ecosystem. The country's investment in digital transformation, AI, and smart technologies makes it an ideal place for me to gain practical and research experience in my field. Additionally, Turkey provides a rich academic and cultural experience, where I can learn from experienced professors, collaborate with students from different backgrounds, and engage in real-world AI research. I believe this experience will allow me to develop both academically and professionally. Future Plans and

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the Importance of this Scholarship This scholarship is very important for me because it will allow me to continue my education in AI and Data Science, work on advanced research projects, and contribute to AI-driven innovation. If I receive this scholarship, I plan to: 1. Focus on AI-driven data analysis and automation research. 2. Develop AI models that can be applied in areas like decision-making, automation, and predictive analytics. 3. Work with professors and researchers in Turkey to explore new AI techniques and technologies. After completing my studies, I plan to apply my knowledge in Ethiopia and internationally by working on AI-driven solutions that improve efficiency, automation, and decision-making in various industries. I believe this scholarship will help me grow as a professional, expand my expertise, and make a meaningful impact in AI and Data Science.

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.

Advancing Artificial Intelligence in Data Science for Real-World Applications

#### 1- Subject of study

How can Al-driven data science solutions optimize decision-making across industries Specially in basic sectors like Health, Agriculture and others?

#### 2- Research Question (Up to 15 words)

The increasing reliance on Artificial Intelligence (AI) in Data Science has transformed industries by enabling smarter decision-making, automation, and predictive analytics. However, challenges such as bias in Al models, lack of interpretability, and inefficiencies in processing large datasets remain significant obstacles to fully optimizing Al-driven solutions. My academic background in Computer Science and Electronics & Communication Engineering, along with my Data Science training at ALX Africa and research experience as an Academic Research Assistant, has given me the necessary skills to explore and address these challenges. Through my work on Amharic Sign Language Transcription using deep learning and Al-powered automation for the Quad Dog Robot, I have seen firsthand how AI can improve efficiency and automate complex processes. However, industries such as healthcare, finance, and industrial automation still struggle with deploying scalable, reliable, and interpretable AI models that enhance decision-making without compromising fairness and transparency. My research will focus on advancing Al-driven data science solutions to optimize decision-making across industries. The key components of this study include: 1. Al-Powered Predictive Analytics – Developing machine learning models that enhance forecasting, anomaly detection, and real-time decision-making. 2. Scalable Data Processing Exploring efficient algorithms and cloud-based AI models to handle large-scale, high-dimensional datasets. Explainable AI (XAI) and Ethical AI – Implementing techniques that make AI models transparent, fair, and interpretable for better trust and adoption. 4. Practical Industry Applications – Applying AI models to domains such as automation, fraud detection, natural language processing, and smart analytics. By addressing these challenges, my research aims to contribute to the development of scalable, interpretable, and efficient AI models that empower organizations to make smarter, data-driven decisions. This study will provide solutions that enhance real-world AI applications, reduce bias, and improve automation, making AI more reliable and impactful in diverse industries.

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.)

To explore how Al-driven data science solutions optimize decision-making across industries, my research will employ a combination of quantitative and qualitative research methods. These methods will help in understanding the efficiency, accuracy, and real-world applicability of AI models in automation, predictive analytics, and decisionmaking. 1. Literature Review - I will conduct a comprehensive review of existing AI models and data science techniques used in decision-making. This will include analyzing research papers, case studies, and real-world implementations of AI in industries such as finance, healthcare, and automation. 2. Data Collection & Preprocessing – I will gather structured and unstructured datasets from public repositories, industry reports, and open-source datasets. Data preprocessing techniques such as feature engineering, normalization, and anomaly detection will be applied to ensure high-quality input for Al models. 3. Machine Learning Model Development – I will design and train machine learning models using supervised, unsupervised, and deep learning techniques. These models will focus on predictive analytics, optimization, and automated decision-making. I will use libraries such as TensorFlow, Scikit-learn, and PyTorch for model development. 4. Model Evaluation & Performance Testing – The trained models will be tested on real-world datasets using performance metrics such as accuracy, precision, recall, F1-score, and computational efficiency. 5. Explainability & Ethical Al Analysis – I will incorporate Explainable Al (XAI) techniques to ensure AI decisions are transparent, interpretable, and unbiased. Tools like LIME and SHAP will be used to assess model fairness and interpretability. 6. Case Studies & Industry Application – To validate the practical impact of my research, I will analyze real-world case studies where Al-driven data science models have

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been successfully implemented. This will help identify best practices and areas for improvement. By combining these research methods, my study will provide data-driven insights, ethical considerations, and practical AI solutions to enhance decision-making in various industries.

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.)

Al-driven data science solutions have the potential to significantly improve decision-making across various industries by enabling more efficient and data-driven processes. As industries are increasingly relying on large datasets, traditional methods of decision-making often fall short in terms of scalability, speed, and accuracy. With Al, especially when combined with data science, these challenges can be addressed, allowing for faster data processing and offering more reliable insights. For example, in the healthcare sector, Al can help analyze patient data to improve diagnoses, predict patient outcomes, and optimize hospital operations. In finance, Al can aid in optimizing investment strategies, identifying fraud, and assessing risks by analyzing patterns in financial data. In manufacturing, Al can predict equipment malfunctions, optimize supply chains, and reduce operational costs by analyzing production data. While the potential for Al to optimize decision-making is vast, challenges like ensuring that Al models are interpretable and fair still need to be addressed. To make sure Al systems are trusted and effective, I aim to focus on using Explainable Al (XAI) techniques. These techniques will help make Al models transparent, ensuring that decisions made by Al systems can be explained and trusted by industry professionals. This scholarship will help me build on my background in data science and Al, allowing me to conduct research that can contribute to solutions in industries like healthcare, finance, and manufacturing. By applying Al to these fields, I aim to contribute to technological transformation in Ethiopia and beyond.

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

This research will contribute to advancing AI and data science by tackling some of the key issues in optimizing decision-making across industries. My focus will be on developing AI models that are not only efficient and scalable but also transparent and interpretable. By addressing the challenge of explainability, the study aims to make AI more trustworthy, particularly in fields like healthcare, finance, and automation. The outcome of this study will provide insights into improving AI model performance, which can be applied in real-world scenarios, helping industries make more informed and reliable decisions.

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

In my research area, there are several key sources that have helped shape my understanding of how AI can optimize decision-making. A foundational text is Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig, which provides a comprehensive overview of AI techniques. I've also found Deep Learning by lan Goodfellow invaluable for understanding the algorithms behind AI models. When it comes to applying AI to decision-making, Predictive Analytics by Eric Siegel is crucial, as it explores how data science techniques are transforming industries like healthcare and finance. Another important topic in my research is the need for transparency in AI systems. Why Should I Trust You? by Ribeiro et al. dives deep into the need for explainable AI and how we can make models more interpretable, which is essential for building trust and reliability in AI-driven decisions. Lastly, Klaus Schwab's The Fourth Industrial Revolution highlights how AI is reshaping industries worldwide, providing a broader context for understanding its role in the future of decision-making. These sources have provided me with a strong foundation and continue to influence my approach as I explore ways to optimize decision-making through AI-driven data science.

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

I would like to take this opportunity to briefly explain my decision to focus on Al-driven data science solutions for optimizing decision-making across industries. While my academic background includes a dual degree in Computer Science and Electronics & Communication Engineering, along with specialized training in Data Science, I understand that these interdisciplinary skills may not always be immediately clear in their direct application to real-world AI challenges. My work as an Academic Research Assistant and my hands-on projects, such as the Amharic Sign Language Transcription system, demonstrate my ability to translate theoretical knowledge into practical solutions, particularly in areas of automation, predictive analytics, and AI model development. The integration of AI with real-time decision-making and the need for model transparency and fairness are key challenges I am passionate about tackling, and I believe my diverse background uniquely positions me to make meaningful contributions in these areas. I hope to bring these experiences to my studies in Turkey, where I can further refine my skills and continue working toward developing scalable and interpretable AI models for real-world applications.



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.

O Yes O 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.

C Yes C No

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

O Yes

O No

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

# 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 +251925594543



- Metekel / Ethiopia / 0000

Address / City/ Country/ Postal Code

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

Facebook / Twitter / LinkedIn

#### Academic Qualification

### Social Activities

Туре	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
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# Special Talent Information

Other	Cycling	Gymnastics	Other	
Other				

# Voluntary Activities

Name	Institution/NGO you served at	Description
Social Activity (Islamic Teaching)	ASTU Muslim (Sufy) Community	Lead and assist Muslim Students during the joining of the University

## Reference Information

Name	Surname	Company/Institution Name	Title/Position	This information belongs to my academic reference.	Phone	E-mail
Megersa	Daraje	Adama Science and Technology University	Head Of CSE Department	Yes	+251924963996	megersa.daraje@astu.edu.et
Dr. Nune	Sreenivas	Adama Science and Technology University	Associated Professor	Yes	0926792898	nune.sreenivas@astu.edu.et

# Advisor Information

Interview Location

## Ethiopia / Addis Ababa

Country / City

# My Applications

Year	Term/Semester	Scholarship programme	Results
2024	2024 Başvuru Dönemi - Genel	Lisansüstü Burs Programı	

# Turkiye Experience



### ALI KIBRET MUHAMED

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No

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

-

What was the purpose of your stay in that country?

1

Start date / Graduation Date

No

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

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Institution/organisation that provided the scholarship

Another Web Site

YU No (Foreign Number)

Please specify how you learned about this scholarship?

No

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

No

Do you have any relatives living in Turkey?