

Biniam Abraha Masa

Date of birth: | Nationality: | Gender: Male |

Phone number: | Email address:

| LinkedIn:

Skype:

Address:

ABOUT ME

Enthusiastic computer science graduate with a foundation in both computer science and AI, passionate about exploring the realms of machine learning, natural language processing, and data science. Eager to kickstart a career in a dynamic tech environment, leveraging a detail-oriented approach and collaborative nature to contribute effectively to a forward-thinking team. Excited about opportunities for learning and growth while making meaningful contributions in the evolving landscape of technology.

I possess a Refugee residence permit with work authorization Valid until: 05-12-2027 Issued by Questura Di Bologna

EDUCATION AND TRAINING

17/09/2019 – 21/10/2023 Bologna, Italy

MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE (LAUREA MAGISTRALE CLASSI LM-18 - COMPUTER SCIENCE, LM-32 - COMPUTER SYSTEMS ENGINEERING) UNIVERSITY OF BOLOGNA
University of Bologna

This thesis centers on Intelligent Document Processing (IDP) employing Artificial Intelligence, mainly Machine Learning and NLP. It aims to enhance document processing's efficiency and quality by automating classification, information extraction, validation, and entity name searching in commercial invoices. The thesis focuses on data extraction from invoices, comparing different OCR methods, and optimizing OCR quality. The primary contribution is an efficient system with a small data requirement.

Website <https://corsi.unibo.it/magistrale/artificial-intelligence> | **Field of study** Artificial Intelligence |

Final grade 86/110 |

Thesis Development of an AI-based solution for document processing Automation using ML and NLP Techniques

Link <https://amslaurea.unibo.it/30008/>

14/09/2015 – 20/07/2019 Mekelle, Ethiopia

BACHELOR' DEGREE (LAUREA TRIENNALE) University of Mekelle

This project a Personal Health care was an Android based application to help patient to find his or her medicine by their mother tongue languages which is Tigrigna language developed using programming language and tool such as Java Script, XML, CSS and SQLite, Apache Wamp server, Wamp database, Android studio, Dia for UML standard design. The project includes Finding diseases, Symbol of diseases, Cause of diseases, Counselling, Protection techniques, food System. Healing system, frequently asked questions from the patients with secure graphical user interface. To carry out the project data were gathered using interview, observation and documents assessment were employed. The result assists persons know their health status and save their time and finance.

Website <http://www.mu.edu.et/> | **Field of study** Computer Science | **Final grade** 3.17/4 |

Thesis Personal Health Care

Link https://drive.google.com/file/d/1L7_Lxu_mYXz-UWtzBSmCwe7539Uiu2SB/view?usp=sharing

18/08/2020 BOLOGNA, Italy

SAFETY SPECIFIC TRAINING MODULE-2 Alma Mater Studiorum - Universita di Bologna

The above course and the verification test meet the requirements provided by the DLGS 81/2008 and G.U. No. 8 of 11/01/2012 for the specific training of workers on safety and health in the workplace.

Website <https://www.unibo.it/en/homepage>

Link <https://elearning-sicurezza.unibo.it/>

15/08/2020 BOLOGNA, Italy

SAFETY GENERAL TRAINING MODULE-1 Alma Mater Studiorum - Universita di Bologna

The above course and examination test meet the requirements provided by, LEG. DECREE 81/08 ART. 37, and the state-regions agreement of 21/12/2011 for the specific training of workers on safety and health in the workplace.

Website <https://www.unibo.it/en/homepage>

Link <https://elearning-sicurezza.unibo.it/>

● **WORK EXPERIENCE**

05/2023 – 08/2023 BOLOGNA, Italy

DATA SCIENTIST EFFICIENTO

I have worked as an intern in Cloudif S.r.l company based in Bologna that develops AI solution for 4 months. During this period I participated in members of the team and my tasks involved a step by step, data collection, build the dataset by collecting 15 documents with 10 different invoice providers, to use docusense from company work desktop to get the OCR from the document, define entities of header and rows, labeling document using the prodigy tool for drawing bounding box and annotating the entity, train the model using the nlp spaCy framework, and evaluate.

02/09/2020 – 11/2020 BOLOGNA, Italy

STUDENT PART-TIME JOB(150 HRS) AFORM TRAINING AND DOCTORAL AREA-UNIBO

managed access control measures and entry limitations during the epidemic to all visitors e.g., prohibiting gathering, sanitizing hands, wearing masks...etc.

10/2017 – 04/2019 Mekelle, Italy

COMPUTER REPAIR AND MAINTENANCE MEKELLE UNIVERSITY AND PRIVATE WORK

In this job, I had the opportunity to develop my technical skills and problem solving abilities. As a computer repairman, it was my responsibility to diagnose and fix all kinds of issues. If someone had a problem with their PC, I would find out what was wrong and take care of it. One of my favorite parts of this job was helping people that forgot their passwords. After realizing I could do it pretty easily, I started calling myself a computer locksmith.

Computer related issues were a breeze for me at this point. And I believe this skill set is invaluable as we become more reliant on technology. If I were to be hired, any issue that comes my way would be solved quickly and efficiently

Link https://drive.google.com/file/d/1mBqugTewWIBKKhje4TA_5JNbCu3_8Vy/view?usp=sharing

09/2017 – 02/2019 Mekelle, Ethiopia

LAB ATTENDANT & CISCO NETWORKING MEKELLE UNIVERSITY

- Resolved networking issues (wired and wireless) and email problems for university officer users.
- Provided support for software, including MS Office.
- Analyzed client-specified problems to develop hardware and software solutions.
- Modified and tested systems and networks to enhance functionality and workflow.

-Assisted internal and external customers in solving computer problems.

Link <https://drive.google.com/file/d/1p9rB-0fcM1EJ5ses7LOajNOEbUyPoHW4/view?usp=sharing>

07/2010 – 08/2011 Sawa, Eritrea

MATHEMATICS TUTOR MINISTRY OF EDUCATION

I used to teach mathematics academic contents such as Geometry, Algebra and trigonometry during part-time hours for the preparation of final exam which is Eritrean Secondary Education Certificate Examination (ESECE)

● LANGUAGE SKILLS

Mother tongue(s): **TIGRIGNA**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
AMHARIC	C1	C1	C1	C1	C1
ITALIAN	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

Programming Languages: Python, MySQL, PowerShell | Machine Learning: Regression, Classification, Association, TensorFlow, keras | Natural Language Processing: NLTK, LSTM, spaCy, Prodigy tool. | Data Science: NumPy, Pandas, Matplotlib, Workbench | Knowledge of OS: Windows and Linux | Excellent knowledge of common utility programs: Office 365, Dropbox, Teams, Zoom, Onedrive, Git BASH) | Good knowledge of markup languages: HTML, Latex, CSS | Computer: software and hardware installation, System & Network Testing | Partial Knowledge of programming languages: Prolog, C++, JavaScript, Android Studio | Database and Development Tools: SQLite, InfluxDB, Grafana, Apache Wamp server, Wamp database | Design and Modeling: Dia for UML standard design

● ADDITIONAL INFORMATION

NETWORKS AND MEMBERSHIPS

02/2018 – 06/2019 Mekelle, Ethiopia

Committee Student Association Used to participate as committee within student association.

Link https://drive.google.com/file/d/17LvQLGsv9a6igwEOSsGvR-ZiQXsE6LM/_view?usp=sharing

05/2007 Massawa, Eritrea

Primary Education Core at Student Association A student-centered association for encouraging students with their studies at a book club event.

Link <https://drive.google.com/file/d/14X8a9ZMgedwsoy25XFi-JvEGGmj4l9yj/view?usp=sharing>

RECOMMENDATIONS

Roberto Verdone Professor at DEI, university of Bologna

I received a reference letter from Professor Roberto Verdone, who instructed the 'Project Management and Soft Skills' course during my master's degree. In the letter, he described my strong approach towards project management and highlighted my active participation in team activities, which contributed to a

successful learning experience. This letter underscores my commitment to developing soft skills and attitudes for a successful professional life.

Email roberto.verdone@unibo.it

Link <https://drive.google.com/file/d/1l3zYj7skqnjO9lmlCbEdcLMlIW6tIZjp/view?usp=sharing>

Tewele Weletnsea Lecturer university of Mekelle

I've received a glowing recommendation from a former instructor for "Microprocessor & Assembly language Programming" highlighting my excellence in Software Engineering, Artificial Intelligence, and Microprocessor courses, emphasizing my strong analytical skills and successful software development. It also mentions my commitment to community service, leadership, and project coordination, showcasing my potential for your program and society's benefit.

Email tewetty@gmail.com

Link https://drive.google.com/file/d/1x92riUJ_L4qCVmV0JwqH_gq6pl80j-5u/view?usp=sharing

Teklay Gebregzabier Lecturer at university of Mekelle

Received commendation highlighting dedication, creativity, and teamwork during school. Emphasizes diligence in Object-Oriented Software Engineering, passion for learning, and helping others. Recommender from a former Dean and Previous Lecturer for "Object Oriented Software Engineering" course sees me as a valuable asset to the nation and organization, endorsing further studies and employment in related fields.

Email gebregzabier@mu.edu.et

Link <https://drive.google.com/file/d/14Yj4p3QLAmtevpvd1Fr37xm2oCtYpmfj/view?usp=sharing>

PROJECTS

05/2022 – 12/2022

Smart Pot The goal of the project was to design an IoT application smart pot monitoring system for home gardening. It includes main functionalities such as monitoring environmental parameters by sensors placed above the plant and into the pot. This involves IoT data collection and forecasting to give information of the plant health, moisture level of soil, and temperature, and humidity around the atmosphere.

Therefore, it includes IoT data pipeline, such as data generation and processing on the ESP32 as an edge device, data acquisition via HTTP and MQTT protocols, data management via Influx DB as the time-series database, data visualization via a GRAFANA dashboard, data processing and analytics.

Furthermore, the device also supports location of the pot using the GPS sensor and used Adafruit IO platform for updating the run time parameters via MQTT protocol. The data was backed up in InfluxDB, storing records for the last 14 days.

Link <https://drive.google.com/file/d/1o3PXue9mN0RuX1V3LuMtD3ZsEbbPPXyb/view?usp=sharing>

12/2021 – 07/2022

Text Summarization using LSTM and Sumy NLP system trained on BBC news Dataset that employed extractive summarization using lstm model and Sumy library doing preprocessing that includes removal of stop words, punctuation etc.

Link https://drive.google.com/file/d/1NagXjsZmgi3tzliZH1au_91jZ4FHzEc/view?usp=sharing

12/2021 – 04/2022

Wellchain Uses your production numbers to calculate the royalty payments and records each stakeholder stake on private blockchain. Calculate the mine and share the profit with partner, & each partner has certain percentage of share, we calculate what will the percentage be. We'll get the account number & share the profit, which is calculated & will be automatically transferred to the account & transaction will be recorded on blockchain. It automates the transactions, so there can be no dispute over each person's share.

Link https://drive.google.com/file/d/1G7zXcJyXDLAfrfEOszXDvwJQ_IM0jFC9/view?usp=sharing

12/2021 – 03/2022

Text Summarization using BERT and NLTK Using pretrained Bert and custom made nltk model we generated extractive based text summary from input pdf file feed to the model. We found pre-trained bert model is limited to specific size summary and used nltk for large sized to give us good summary based on sentence ranking.

Link https://drive.google.com/file/d/1_DYfP_ruzyHKAAX_sVeYkbCJwiAIASW/view?usp=sharing

10/2021 – 11/2021

Sentiment Analysis on Enron Mail Dataset Discovering people opinions, feelings or emotions about a service using VADER model both polarity (positive /negative) and intensity of emotions that is based on lexicon of sentiment-related words as each words rated whether or on how it's positive or negative it is.

Link <https://drive.google.com/file/d/193U-GwGMvWfAtPqbfiPm23jj4MNJHCKn/view?usp=sharing>

05/2021 – 06/2021

Solar Powered Led Street Light with Auto Intensity Control A research and Innovation actions-based project which is to install streetlights with Solar Powered LED Street Lighting with Auto Intensity Control that consume less electrical energy and reduce dependence on conventional energy, conservation of energy and less reliance on the national grid which was done for the course of project management and soft skills.

Link https://drive.google.com/file/d/1lvXwxNac3-LMU-x8G65stYqqVOBuQB_m/view?usp=sharing

01/2021 – 04/2021

Fine-Tuned Bert Models for QA Task EQA consists in predicting the answer text span from the passage given and the question using four pre-trained model based on transformers to show the difference among them and show how they can be used on QA task to achieve better performance. we have introduced statistical hypothesis test to determine which model is best choice.

Link https://drive.google.com/file/d/1b7k5uiXcjEH2ggjIKug_Y0KZ-Muh_W7/view?usp=sharing

HONOURS AND AWARDS

05/2023

MUSIXMATCH GRADUATE – Musixmatch Attended a course on how to publish professionally, tag song structures by labeling songs to sections having their own names, functions, and specific meanings, how to sync, and translate to contribute song lyrics for the community.

Link https://drive.google.com/file/d/15bl77j0-f2Sj9CddXn_qaYzPiFPrVS5Y/view?usp=sharing

02/2019

IT Essentials Practical Course – Cisco Networking Academy Certified in PC Hardware and Software Maintenance and Management. Proven expertise in selecting, installing, and configuring computer components. Proficient in performing preventive maintenance, troubleshooting, and managing Windows operating systems. Skilled in configuring devices for Internet connectivity and cloud services. Demonstrated ability to use, configure, and troubleshoot laptops, mobile devices, and operating systems including OS X and Linux. Expertise in installing and sharing printers. Well-versed in implementing basic host, data, and network security. Familiar with the roles and responsibilities of IT professionals. Proven ability to troubleshoot advanced hardware and software problems.

Link <https://drive.google.com/file/d/1IZxdG8NfpulxBXERagYrE-HcKSNmWXQI/view?usp=sharing>

06/2018

CCNA Routing and Switching introduction to Networks – Mekelle University Certified after completing an intensive networking course. Proficient in explaining network technologies, configuring devices, and designing IP schemes for seamless connectivity in business networks. Skilled in router hardware, switching operations, and adept at using monitoring tools for efficient network management.

Link <https://drive.google.com/file/d/14ib6uwbvoLoM2jjkoCLZdy5RxUVtcS-l/view?usp=sharing>

06/2018

CCNA Routing and switching: Routing and switching Essentials – Mekelle University Certified in Network Technologies. Skilled in router configuration, monitoring, and troubleshooting. Proficient in IP

addressing, switching, VLANs, routing protocols, DHCP, NAT, and ACLs. Adept at managing small to medium-sized business networks.

Link <https://drive.google.com/file/d/1opw2stjGMjU4LjJGPDup-WxNMA0iUYTm/view?usp=sharing>

11/2011

Zagre – State of Eritrea, Ministry of Education I awarded Zagre a certificate for achieving good results for the final exam in the Eritrean Secondary Education Certificate Examination (ESECE), which was received from State of Eritrea, ministry of Education.

Link <https://drive.google.com/file/d/1lc4w3YT-Q0TnLGqT5c-qZn9yi5KZW3Qm/view?usp=sharing>

06/2009

Electrical House Installation – A.C.C COMPUTER TRAINING CENTER Through comprehensive training, I gained experience in electrical installations, encompassing precise wiring techniques, safety protocols, circuitry understanding, troubleshooting skills, load management, and hands-on experience.

Link <https://drive.google.com/file/d/1cH4jUilhoMW4XL5JJY6PcgQzg8KorC4m/view?usp=sharing>

06/2009

Academic Excellence from elementary to secondary – Eritrea Ministry of Education Demonstrated consistent academic excellence throughout my school years, consistently ranking among the top three students in my class from elementary grade till higher secondary grade. Earned numerous academic awards and certificates of excellence, showcasing my dedication to academic pursuits.

Link https://drive.google.com/file/d/1VYmb8NCgYXjhWtNpQ8wG_95sgjAGvg7P/view?usp=sharing

10/2007

Computer Course – <https://eriyouth.org/> Having successfully completed a comprehensive three-month computer course, I have acquired a solid foundation in various software applications and computer operations. This training has equipped me with the knowledge and skills to navigate the digital world effectively with tools such as Microsoft Windows, Word, Excel, Access, and PowerPoint.

Link <https://drive.google.com/file/d/1gubNoio0bYJyJlBV7h5d4bQGn9RyTR7O/view?usp=sharing>

01/2007

Journalism Course – NEUYS Northern Red Sea Certified after completing an introductory journalism course in native language called Tigrigna. We explored the essence of journalism, including news gathering, delivery methods, and the journalist's role in society. Delved into unbiased reporting, storytelling techniques, and the impact of news on public discourse.

Link <https://drive.google.com/file/d/1h7zhioHHb0lgyuB9bXug6mOBVL2hD7Uo/view?usp=sharing>

05/2006

Practical Course In computer Application Software – Red Sea Junior School Through a practical computer course, I gained proficiency in Microsoft Windows Millennium, Office 2000, MS Word, MS Excel, MS Access, PowerPoint, and Geez, empowering me to navigate the digital world with confidence.

Link <https://drive.google.com/file/d/1f-AfG9q03Y0NAU9ieSjiWSsy6EXoj-jT/view?usp=sharing>

HOBBIES AND INTERESTS

Listening to music

Watching movies

COMMUNICATION AND INTERPERSONAL SKILLS

Cultural adaptability and active listening -Developed communication skills gained through student Association Committee participation and Involvement in Primary Education Core.

-Teamwork - working in various types of teams, both at work and during the study.

-Good negotiation skills

VOLUNTEERING

04/2016 – 06/2018 Mekelle, Ethiopia

Member of Ethiopian Blood Donors Association

04/2005 – 07/2009 Massawa, Eritrea

Member in NUEYS – National Union of Eritrean Youth and Students.

I authorize the processing of my personal data present in the CV pursuant to art. 13 of Regulation (EU) 2016/679, "GDPR", and of Legislative Decree 196/2003, as amended by Legislative Decree 101/2018, "Privacy Code"

Bologna , 19/12/2023

Biniam Abraha Masa