



Ephrem Mekonnen

Date of birth: 02/01/1996

Nationality: Ethiopian

Gender: Male

CONTACT

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ABOUT ME

Recent graduate with a Master's degree in Computer Science, looking for a company or university where I can work, learn, and develop my future career. I have an interest in leveraging machine learning techniques to solve real-world problems. I am a dedicated, organized, humble, eager to learn, and methodical individual. Moreover, I have good interpersonal skills and am an excellent team worker.

WORK EXPERIENCE

26/02/2021 – 22/12/2021 – Trento, Italy

Research intern

Fondazione Bruno Kessler - FBK

- Evaluate the performance of Connectionist Temporal Classification(CTC) and Recurrent Neural Transducer(RNNT) models on Timit(English), apasci(Italian), and Amharic speech corpus for the phoneme and word recognition tasks.
- Incorporate a word-based language model in CTC Beam Search Decoder for E2E ASR.
- Developed an experimental setting for testing the performance of an end-to-end neural model for keyword spotting.

29/09/2017 – 04/09/2019 – Haramaya, Ethiopia

Higher education teaching professional

Haramaya University

- Delivered lectures, seminars, and tutorials
- Designed, prepared, and developed courses and teaching materials
- Support students through a pastoral or advisory role

10/07/2016 – 30/09/2016 – Addis Ababa, Ethiopia

Software developer intern

Ethiopian Airlines

Developed a fleet management system that helps to manage and dispatch vehicles of the company. The project was developed using ASP.NET MVC5.

EDUCATION AND TRAINING

09/09/2019 – 22/12/2021 – Trento, Italy

Master of Science Degree in Computer Science

University of Trento

End-to-End Keyword Spotting Using A Character-Level Recognition and Beam-Search Rescoring

12/09/2013 – 02/07/2017 – Addis Ababa, Ethiopia

Bachelor of Science Degree in Computer Science

Addis Ababa University

GPA: 3.63/4.0 Major GPA: 3.66/4.0 | Motor pool management System for Ethiopian Airlines | www.aau.edu.et

PUBLICATIONS

● **END-TO-END LOW RESOURCE KEYWORD SPOTTING THROUGH CHARACTER RECOGNITION AND BEAM-SEARCH RE-SCORING**

Mekonnen, Ephrem; Brutti, Alessio; Falavigna, Daniele
Has been accepted for presentation at 2022 IEEE International Conference on Acoustics, Speech & Signal Processing (ICASSP)

PROJECTS

● **01/07/2021 – 05/10/2021**

● **End to End Keyword Spotting (E2E KWS)**

<https://github.com/Ephrem-ETH>

An end-to-end low-resource keyword spotting through a character-level LSTM and connectionist temporal classification loss function.

● **07/11/2020 – 31/01/2021**

● **Mining Frequent Popular Topics in time from tweet dataset**

- Given the tweet dataset about covid-19, and the idea of the project is to find frequent popular words that appear together in time. It is implemented fully in python.

● **22/02/2020 – 28/05/2020**

● **Deploying Web Application using Docker and Kubernetes**

- Fog and Cloud Computing Class project.
- Deployed a web application using Docker and Kubernetes to easily scale up/down the web server as per the traffic, manage, and leverage the benefits of both technologies.

● **Machine Learning Projects**

- Classification of Spam/Not Spam using Scikit-Learn
- Optical Character Recognizer(OCR)
- House Price: Advanced Regression Technique from Kaggle

** I have also taken deep learning courses from Coursera and done the course projects along the way.**

● **30/09/2016 – 02/2017**

● **Pharmacy Inventory Management System**

- A desktop application that helps to register stocks, manage sells and purchases easily. It has well-implemented account management so that managers of the pharmacy can control what is going on and take efficient decisions accordingly. The application can also support different languages.

HONOURS AND AWARDS

● **09/09/2019**

University of Trento Scholarship (Autumn 2019 -2021) – University of Trento

● **02/08/2020**

The Cornell, Maryland, Max Planck Pre-doctoral Research School 2020 – The Cornell, Maryland, Max Planck Pre-doctoral Research School
Emerging Research Trends in Computer Science

CERTIFICATIONS

- **Machine Learning with Python by IBM on Coursera**
Certificate earned on February 2022
- **Data Analysis with Python by IBM on Coursera**
Certificate earned on January 2022
- **Learning Bash Scripting on LinkedIn**
Certificate earned on January 2022
- **Neural Networks and Deep Learning on Coursera**
Certificate earned on April 2020
- **Python for Data Science and AI by IBM on Coursera**
Certificate earned on March 2020
- **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization on Coursera**
Certificate earned on April 2020
- **MLOps (Machine Learning Operations) Fundamentals**
Certificate earned on May 2021

TECHNICAL (IT) SKILLS

- **Tools**
Eclipse, NetBeans, Visual Studio, Android Studio
- **Languages and Frameworks**
Java, Python, JavaScript, Kotlin, HTML, CSS, C#, Django, Bash scripting, PyTorch
- **Database Managment**
SQL Server 2012, MYSQL, Oracle 11g
- **Cloud - based Technologies**
Docker and Kubernetes