

# **Henok Desalegn**

## **SUMMARY:**

- Over 5 years of extensive experience in data science, machine learning, deep learning, Natural Language
   Processing and data mining.
- Experience in Design, Development and implementation of different types of machine learning model architecture
  and researches ranging from signal modulation classification using deep learning, speaker recognition using deep
  learning to fake news classification models.
- Experienced Data scientist, with cross-disciplinary experience and hands-on skills spanning in the range of machine learning, big data analytics, NLP, statistics, and Deep Learning.
- Experience in building machine learning models using Tensorflow, keras and pytorch frameworks.
- Experience in data analysis using R programming language.
- Experience in using different python modules for modeling and analysis.
- Experience in designing deep learning model and hyper parameter optimization.
- Proven organizational, time management and multi-tasking skills and ability to work independently while being a good team player who enjoys delivering high quality work

# **TECHNICAL SKILLS:**

Operating System	Windows, Linux Ubuntu
Primary Skills	Python, R, Deep Learning, machine learning, data manipulation and analysis, Numerical and Statistical Methods, data driven, natural language processing.
Frameworks	Tensorflow, pytorch and keras.
Database	MySQL
Tools	GIT, Visual Studio, pycharm, Jupyter notebook, Tableau.
Management skills	Good communication, client facing & problem-solving skills, Have the experience of handling multiple clients at the same time, data driven.

## **EDUCATION:**

- Bachelor of Science in Information Science, University of Gondar, July 2016
- Master of Science in Computer Science (in software Engineering), Addis Ababa University, November 2021

#### **TRAINING:**

- 2022 GC Foundation Certificate Data Science and Visualization, Kamino United Nations Data Science and Visualization Team.
- Trained Mentor which was facilitated by Xhubaddis and funded by the MasterCard Foundation.
- 2020 GC Certificate of completion, Introduction to Artificial Intelligence (AI) by IBM hosted on coursera.
- 2020 GC Certificate of Completion, Scientific Computing and Python for Data Science Applied Data Science Module: Unit I, Online Course offered by World Quant University with HONORS.
- 2020 GC Certificate of Achievement, Research4Life MOOC on: Access to Research for Development and Innovation (ARDI), online course offered by Research4life and the food and agriculture organization of the United Nations (FAO)
- 2019 GC certificate of completion, Machine Learning hosted on Coursera by Stanford University.
- 2019 GC certificate of completion, For the Data Scientist's Toolbox hosted on Coursera by johns Hopkins University.
- 2019 GC certificate of completion, Data Visualization with Python, by IBM hosted on Coursera.
- 2019 GC Certificate of completion, "What is Data Science" By IBM hosted on coursera.
- 2019 GC Certificate of completion, Data Science Orientation by IBM hosted on coursera.
- 2019 GC Certificate of completion, Data Analysis with Python by IBM hosted on coursera.
- 2019 GC Certificate of completion, Text Mining and Analytics by University of Illinois at urban champagne hosted on coursera.
- 2019 GC Certificate of completion, Python for Data Science and AI by IBM hosted on coursera.
- 2019 GC Certificate of completion, Data Science Methodology by IBM hosted on coursera.
- 2019 GC Certificate of completion, getting started with AWS Machine learning by Amazon Web Service hosted on coursera.

## **WORK EXPERIENCE:**

Client: Excellerent Technology Solutions Nov-2021 – present

**Project:** Chatbot system development and resume parsing and scoring internal projects

**Description:** Working as a Senior Data Pipeline Engineer for Excellerent Technology Solutions, responsible with

researching, design and development of data pipeline and machine learning solutions.

**Role**: Senior Data Pipeline Engineer

# Responsibilities:

Responsible with research, design and implementation of data pipeline and machine learning solutions.

Environment: python, jupyter notebook.

Client: Ministry of Innovation and Technology (Digital Transformation Jun-2019 Nov-2021

project – funded by internet society)

**Project:** National Online Fake News and Hate Speech Monitoring Project

**Description:** Responsible for researching and developing deep learning models for classification and analysis of

social media data for local languages.

**Role:** Data modeling and machine learning expert

# **Responsibilities:**

Being part of the development team, I was responsible for designing, training and fine tuning deep learning model for miss-information classification.

• Python – for design and development of language and classification models for local languages.

R- used as data analysis tool and visualization tool.

## **Accomplishment:**

The built machine learning model is deployed and being used by government bodies ranging from the prime minister's office to national intelligence agency.

Factify: https://factifyethiopia.com/

**Environment:** Windows, cuda, Ubuntu, MySql, Python, R.

Client: Information network security agency jun-2018 jun-2019

**Project:** Speaker recognition

**Description:** Responsible for researching and designing deep learning model.

**Role:** Data mining researcher

**Responsibilities:** 

- Participated in researching and designing deep learning algorithms to model speaker recognition system.
- Collect recorded raw human voice (wav) file from server.
- Convert wav voice file to spectrogram for feature engineering.
- Deep learning model training and fine-tuning.

**Python -** proposed Tensorflow framework to model speaker recognition.

**Environment:** windows, python, R.

Client: Information network security agency may-2017 jun-2018

**Project:** Social network analysis

**Description:** Assigned as a data mining researcher responsible for researching, design and implementation

of graph algorithm that constructs connection nodes between entities that have connection in

the network.

**Role:** Data mining researcher

**Responsibilities:** 

• Mainly involved in researching the different ways to extract social network features, identify nodes and edges ways to model the network features.

**Environment:** windows, cytoscape, python and gephi.