BETHEL MELESSE TESSEMA

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I am a Master's of AI student in Korea, working on NLP (LLMs) and CV, with F2 visa (sponsorship not required).

EDUCATION

Masters of Artificial Intelligence (2022-2024*) · *Ajou University*
· *CGPA: 4.29*/4.5* · Seoul, South Korea

Bachelors of International Studies (2018-2022) · *Hankuk University of Foreign Studies*
· *CGPA: 3.75/4.5, President of United Students of Silk-Road University Network* · Seoul, South Korea

Software Engineering (2015-2017) · *Addis Ababa Institute of Technology*
· *3 semesters of undergraduate studies, #1 university in Ethiopia* · Addis Ababa, Ethiopia

TECHNICAL STRENGTHS

Programming	Python (Intermediate), Java (Intermediate)
Machine Learning	Pytorch (Intermediate), HuggingFace Transformers (Intermediate)
Typesetting, Version Control	Latex (Intermediate), Git/Github (Intermediate)
Statistics	Hypothesis Testing, Significance Testing (Intermediate)

RELEVANT MASTER'S COURSES

Advanced Artificial Intelligence, Advanced Machine Learning, Advanced Topics in Machine Learning (GNN),
Advanced Computer Vision, Introduction to Natural Language Processing, Information Retrieval,
Advanced Image Signal Processing, Industrial Mathematics Survey

PROJECTS

Data Collection & Fine-tuning of LLMs for Low-Resource Languages on Consumer Hardware 2023*
· Filtered all data from > 1000 TB of Common Crawl for low-resource languages for < 2 \$.
· Evaluated capability of pre-trained Large Language Models (LLMs) for low-resource languages.
· Fine-tuned multi-lingual LLMs using Quantized Low-Rank Adapdation (QLoRA) on consumer GPUs.
· Code will be released as open-source, to enable any researcher to build LLMs affordably.

Information Retrieval for Low-Resource Languages 2022
· Trained a BERT-like transformer Language-Model (LM) for IR for African languages.
· Compared traditional IR approaches (tf-idf, BM25) vs SOTA approaches.

Generalized Output Spaces for Classification Models 2022-2023*
· Improved cross-domain/cross-task generalization of classifiers by fusing multiple descriptions of classes/tasks.
· Achieved SOTA zero-shot performance in multiple datasets.

Open Source Contributions 2021
· Added support for more languages to "AllTrans", an android application translator.
· Added extra languages to "Android-Auto-Localization", to localize Android application's resources.

PAPER REVIEW AND REPRODUCTION

Natural Language Processing Models	Transformer Model, Bert Model, GLUE, ORQA
Computer Vision Models	CLIP Model, ViT Model, ResNet Model
Other ML Models	EGT Model

LANGUAGE SKILLS

English: TOEIC English Reading and Listening (2021)	915/990 (Professional)
Korean: Intensive Korean Language Course (2018)	1-year Intensive Course
Korean: TOPIK (2021)	Level 4

CERTIFICATES, AWARDS & SCHOLARSHIPS

Academic Scholarship	Ajou Research Scholarship (2023) - Recommended by HOD as Excellent Student, BK Research Scholarship(2022-2024), Ajou Tuition Scholarship (2022-2024) HUFS Tuition Scholarship (2017-2022), Exemplary Student Award (2017)
Korean War Scholarship	Awarded by the Embassy of Republic of Korea(2026), Korean War and Military Police Widow's Association (2020), Korean War Memorial Foundation (2017-2022), Memorial Association of UN Participation in Korean War (UNPK) (2023)
Certificates	KAIST-AAiT IT Training Course (2016), Intensive Korean Language Course, HUFS (2017-2018)

HOBBIES, VOLUNTEERING & INTERESTS

Volunteering for NGOs (Korean Saemul Undong Center, The Korea-Africa Foundation Festival, etc.), acting as Translator/Interpreter/tourguide at the Korean War Veterans Revisit Program, Barista at Hwacheon Ice Festival