NUREDIN ALI

PhD Student, University of Minnesota
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Website ⋄ Google Scholar

EDUCATION

University of Minnesota   Aug 2022 - Present
PhD student; Computer Science
Advisor: Stevie Chancellor (PhD)

Mekelle University   Sep 2016 - Dec 2020
Bachelor of Science; Information Systems.   GPA: 3.96/4.0 (Top 2%)

PUBLICATIONS

* refers to equal contribution

Diverse Perspectives, Divergent Models: Cross-Cultural Evaluation of Depression Detection on Twitter
[link]
Nuredin Ali, Charles Chuankai Zhang, Ned Mayo, Stevie Chancellor
NAACL 2024 Main Conference

Error Analysis of Tigrinya-English Machine Translation Systems [link]
Negais Haile*, Nuredin Ali*, Asmelash Teka
ICLR 2023 Workshop on AfricaNLP.

Machine Learning Models Evaluation and Feature Importance Analysis on Non Performing Loans [link]
Rufael Fekadu*, Anteneh Getachew*, Yishak Tadele*, Nuredin Ali*, Israel Goytom
NeurIPS 2021 Workshop on Machine Learning for Development (ML4D)

Banknote Recognition for Visually Impaired People (Case of Ethiopian note) [link]
Nuredin Ali
NeurIPS 2021 Workshop on Machine Learning for Development (ML4D)

Exploring Transfer Learning on Face Recognition of Dark Skinned, Low Quality and Low Resource Face Data [link]
Nuredin Ali
NeurIPS 2020 at Black in AI (BAI) Workshop.

HONORS AND AWARDS

- College of Science and Engineering (CSE) **3 Year Fellowship**, University of Minnesota.   2022
- Robert E. Greiling Jr. Fellowship, University of Minnesota. Amount: $6000 USD.   2022
- CS-IDEA Fellowship, University of Minnesota. Amount: $1538 USD.   2022
- 1st place winner of Blackathon. A hackathon organized by Black American researchers.   2021
- Selected to Engineering For Developing Communities. **(1.6% acceptance rate)**   2019
- Top 10 Best Students of the year award (High School). **(1.5% acceptance rate)**   2015

RESEARCH INTERNSHIPS

Distributed AI Research Institute (DAIR) Summer 2023 - Present
PhD Research Intern
Mentors: Timnit Gebru (PhD), Alex Hanna (PhD), Zeerak Talat (PhD), Dylan Baker

- Quantitatively Analysed a large-scale dataset of social media posts (5.5 million posts) to uncover patterns.

- Worked with interdisciplinary groups (i.e. Journalists, Activists, Archivists, and Content Moderators) to contextualize identified patterns and label harmful content.

- Paper under review at CHI 2025 about the expertise needed to moderate harmful content on social media effectively. Mixed method study involving expert disagreement measurements, and qualitative interviews with commercial content moderators.

- Currently, working on building hate speech detection models for low-resourced languages.

- Currently, working on a project to understand the psychological impact of moderation on commercial content moderators in Africa. – A mixed method project of quantification psychological distress and qualitative study for contextualizing the source of the mental health impacts.

PRESS COVERAGE

- Long interview with Voice of America (VOA) Tigrinya discussing our work on Harmful Social Media Content and Mental Health prediction in my native language Tigrinya. [interview video] October, 2024

INDUSRTY EXPERIENCE

Chapa June 2021 - June 2022
Machine Learning, Researcher
Mentor: Israel Goytom

- Worked on a research project to mitigate the non-performing loans of private banks in Ethiopia using Machine Learning.

- Prepared a report by analysing transactions and tweets for the donation platform of one of the grandest projects of the country, the Great Ethiopian Renaissance Dam (GERD).

- We worked with Python libraries such as Scikit learn, used Tensorflow/Keras and Pytorch frame works, with a team of three researchers.

- Mentored University interns on the non-performing loans research project.

Lesan.ai Summer 2019, 2020
Machine Learning, Intern
Mentor: Asmelash Teka (PhD)

- Worked on model evaluation. After extensive evaluation of the model I found that the translation model has domain specific errors.

- Worked on domain adaptation of the translation model. Specially, solving the models' poor performance on translating sports news.

- Scraped data of different languages from web pages for training and evaluating the model.

TEACHING EXPERIENCE

IT Essentials, ICT Agency of Setit Humera July 2018 - Aug 2018
Lecturer

· Taught a class of 40 students:

- In this course, with the collaboration of ICT Agency of Setit Humera, I taught selected high school and college students of the city.

- Mainly targeted on giving the essential IT skills which introduced the students to computer programming.

ACADEMIC SERVICE

- Committee Member of CS-IDEA at the University of Minnesota. Committee member. 2024

- ACM CHI conference on Human Factors in Computing Systems (CHI). Reviewer. 2024

- International Conference on Web and Social Media (ICWSM). Reviewer. 2023, 2024 (x2)

- NeurIPS Ethics. Reviewer. 2024

- ICLR Tiny Papers a DEI initiative. Area Chair (AC). 2023, 2024

- Development Work Group at Mechanism Design for Social Good (MD4SG). Co-organizer. 2023

- ICLR AfricaNLP Workshop. Reviewer. 2023

- ICLR Machine Learning for Global Health (MLGH) Workshop. Reviewer. 2023

UNIVERSITY SERVICE

Head of ICT department, School association, Mekelle University Sep 2019 - Feb 2020

- **Led** and **organized** a group of students to provide trending IT fields like Artificial Intelligence and Machine Learning.

- Communicated with the association peer-leaders to provide lectures on IT skills, to provide IT support to students, managed different tasks of the association.

Engineering for Developing Communities, Mekelle July 2019 - Aug 2019
Summer Research Program

· International Summer Program offered in collaboration of Technion University of Israel and Mekelle Institute of Technology (MIT).

- A holistic program to understand, brainstorm, analyze, and implement problem solving community projects.

- Developed project concepts and maintain optimal workflow by communicating with community.

- Worked with colleagues to design projects by cooperating with different organizations to support our community.

Member of University Parliament Sep 2017 - Dec 2020
Students Representative of Information Systems Department

- Closely supervised the facilities of around 5000 students of the Main campus.

- Closely supervised the University Management such as Head of School of Computing, Lecturers of the Computer Science Department and others.

- Held monthly meeting to discuss on monthly reports and how the facilities such as food, libraries, and classes are being provided to our students.

Languages and Hobbies:

- Tigrinya (Native), English (Proficient), Arabic (Intermediate), Amharic (Fluent).

- Play Football (soccer), Reading, Running.