Sabit Hassan | Curriculum Vitae

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EDUCATION

PhD in Computer Science University of Pittsburgh Expected Spring 2025

Dissertation: Leveraging Active Learning for Safe, Inclusive, and Democratic Conversational Al

Committee: Malihe Alikhani (Co-Chair), Jacob Biehl (Co-Chair), Diane Litman, Xiaowei Jia

BSc in Computer ScienceCarnegie Mellon University
2014–2018

GPA: 3.79/4.0, Minors: Mathematics and History

Thesis: Interactive Evaluation and Training of Classifiers under Limited Resources,

Advisors: Bhiksha Raj and Saquib Razak

HONORS AND AWARDS

Computer Science Dept. Fellowship	University of Pittsburgh	Aug 2023 - Apr 2024
Alexa Prize Taskbot Challenge 3rd Place Award	Amazon	Sep 2023
Alexa Prize Taskbot Challenge Grant	Amazon	Jan 2023
Kuzneski Innovation Cup Award	Big Idea Center	Nov 2022
Outstanding Academic Achievement	Carnegie Mellon University Qatar	May 2018
University Honors	Carnegie Mellon University	May 2018
SCS College Honors	Carnegie Mellon University	May 2018
History Honors	Phi Alpha Theta	May 2018
Carnegie Mellon Dean's List	Carnegie Mellon University	Apr 2015-Apr2018

TEACHING

Guest Lectures

- Active Learning for Democratizing Safety and Fairness in LLMs Northeastern University, Mar 22, 2024
- Causal inference in LLMs, Northeastern University, Mar 19, 2024
- Machine Translation, University of Pittsburgh, Nov 15, 2023

Graduate Teaching Assistant

University of Pittsburgh

Aug 2021-Aug 2024

• CS 1501: Algorithms and Data Structures 2, CS 2731: Introduction to Natural Language Processing, CS 1520: Introduction to Web Applications

Teaching Assistant

Carnegie Mellon University

Jan 2016-May 2018

• CMUQ Freshman Edge Summer Program, 15–251: Great Theoretical Ideas in Computer Science, 15–210: Parallel and Sequential Data Structures and Algorithms, 15–112: Fundamentals of Programming and Computer Science, 21–127: Concepts of Mathematics

Summer Internship Mentor

Qatar Computing Research Institute, Doha, Qatar May 2020-Jul 2020

• Mentored interns on the use of machine learning in NLP tasks

SERVICES

- Co-organizer, MADAR Shared Task on Fine-Grained Arabic Dialect Identification, 2019
- Program Committee/Reviewer: ARR, Journal of NLP, ACL, EACL. EMNLP, IJCNLP-AACL, IEEE MM, Heilyon, ICARD
- Member, Student Academic Committee, Academic Review Board, Carnegie Mellon University

PUBLICATIONS [Google Scholar]

Published/Accepted:

- * denotes equal contribution
- [1] Asano, Y., Hassan, S., Sharma, P., Sicilia, A, Atwell, K., Litman, D., & Alikhani, M. Contextual ASR Error Handling with LLMs Augmentation for Goal- Oriented Conversational AI. COLING, 2025
- [2] Hassan, S., Sicilia, A, & Alikhani, M. Active Learning for Robust and Representative LLM Generation in Safety-Critical Scenarios. Customizable NLP @ EMNLP 2024 [Outstanding Paper Award]
- [3] Sicilia, A., Asano, Y., Atwell, K., Cheng, Q., Gupta, D., Hassan, S. Inan, M., Nwogu, J., Sharma, P., Alikhani, M. *ISABEL: An Inclusive and Collaborative Task-Oriented Dialogue System.* Amazon Science, 2023. [3rd place award in Alexa Prize Taskbot Challenge]
- [4] Hassan, S. & Alikhani, M. DisCGen: A Framework for Discourse-Aware Counterspeech Generation. IJCNLP-AACL, 2023
- [5] Hassan, S. & Alikhani, M. *D-CALM: A Dynamic Clustering-based Active Learning Approach for Mitigating Bias.* ACL FINDINGS, 2023
- [6] Wang, Y., Donovan, H.A.S., **Hassan, S**., Alikhani, M. *MedNgage: A Dataset for Understanding Engagement in Patient-Nurse Conversations.* **ACL FINDINGS, 2023**
- [7] Ye, M., Sikka, K., Atwell, K., Hassan, S., Divakaran, A., Alikhani, M. Multilingual Content Moderation and Challenges: A Case Study of Reddit. EACL, 2023
- [8] Mubarak, H., Hassan, S., & Chowdhury, S. *Emojis as Anchors to Detect Arabic Offensive Language and Hate Speech.* **NLE, 2023**.
- [9] Atwell, K.*, Hassan, S.*, Alikhani, M. APPDIA: A Discourse-aware Transformer-based Style Transfer Model for Offensive Social Media Conversations. COLING, 2022
- [10] Inan, M.*, Yang, Z.*, Hassan, S.*, Quandt, L., & Alikhani, M. Modeling Intensification for Signed Language Generation: A Computational Approach. ACL FINDINGS, 2022
- [11] Hassan, S., Shaar, S., & Darwish, K. Cross-lingual Emotion Detection. LREC, 2022
- [12] Mubarak, H., Hassan, S., Chowdhury, S. A., & Alam, F. *Analyzing Arabic Tweets About COVID-19 Vaccination*. LREC, 2022.
- [13] Hassan, S., Mubarak, H., Abdelali, A., & Darwish, K. *ASAD: Arabic Social Media Analytics and unDerstanding.* EACL 2021
- [14] Mubarak, H., Hassan, S., & Abdealali, A. Adult Content Detection on Arabic Twitter: Analysis and Experiments. WANLP 2021
- [15] Abdelali, A., Mubarak, H., Samih, Y., **Hassan, S.,** & Darwish, K. *QADI: Arabic Dialect Identification in the Wild.* **WANLP 2021**
- [16] Mubarak, H., & Hassan, S. (2021, April). *Analyzing Arabic Tweets in the Early Days of Coronavirus (COVID-19)*Pandemic. LOUHI, 2021
- [17] Mubarak, H., Abdelali, A., Hassan, S., & Darwish, K. Spam Detection on Arabic Twitter. SocInfo, 2020
- [18] Hassan, S., Samih, Y., Mubarak, H., & Abdelali, A. ALT at SemEval-2020 task 12: Arabic and English offensive language identification in social media. SemEval, 2020
- [19] Hassan, S., Samih, Y., Mubarak, H., Abdelali, A., Rashed, A., & Chowdhury, S. A. ALT at OSACT Shared Task on Offensive Language Detection. OSACT, 2020 [Ranked 1st in subtask A]
- [20] Mubarak, H., Hassan, S., & Abdelali, A. Constructing a bilingual corpus of parallel tweets. BUCC, 2020
- [21] Bouamor, H., Hassan, S., & Habash, N. *The MADAR Shared task on Arabic Fine-Grained Dialect Identification.* WANLP, 2019. [co-organizer]
- [22] Anabtawi, M., Hassan, S., Kapoutsis, C., & Zakzok, M. *An Oracle Hierarchy for Small One-way Finite Automata*. LATA, 2019
- [23] Hassan, S., Shaar, S., Raj, B., & Razak, S. *Interactive Evaluation of Classifiers Under Limited Resources*. **IEEE** ICMLA, 2018

Pre-prints:

- [24] Hassan, S., Chung, H., Tan, Z., & Alikhani, M. Coherence-driven Multimodal Safety Dialogue for Embodied Agents arXiv preprint arxiv:2410.14141 (2024)
- [25] Hassan, S., Sicilia, A, & Alikhani, M. An Active Learning Framework for Inclusive Generation by Large Language Models. arXiv preprint arxiv:2410.13641 (2024)
- [26] Abdelali, A., Hassan, S., Mubarak, H., Darwish, K., & Samih, Y. *Pre-Training BERT on Arabic Tweets: Practical Considerations.* arXiv preprint arxiv:2102.10684 (2021)

Abstracts:

- [27] Hassan, S.*, Atwell, KJ.*, Alikhani, M. Studying the Effect of Moderator Biases on the Diversity of Online Discussions: A Computational Cross-linquistic Study. CogSci, 2022
- [28] Inan, M.*, Zhong, Y.*, **Hassan, S.***, Quandt, L., Alikhani, M. *Learning cognitive and linguistic prosodic categories for automatic cross-lingual sign language understanding.* **CogSci, 2022**