# Sabit Hassan | Curriculum Vitae

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## **CEO** @ Moonworks Al

## **EDUCATION**

**PhD in Computer Science**University of Pittsburgh

Jan 2025

Dissertation: Active Learning Frameworks for Safe, Inclusive, and Democratic Conversational AI

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

**BSc in Computer Science**Carnegie 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

| Outstanding Paper Award             | Customizable NLP@EMNLP           | Nov 2024            |
|-------------------------------------|----------------------------------|---------------------|
| Computer Science Dept. Fellowship   | University of Pittsburgh         | Aug 2023 - Apr 2024 |
| Alexa Prize Taskbot Challenge 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    |
| Best Design Award                   | Carnegie Apps Hackathon          | Feb 2018            |
| Best Technical Challenge Award      | Carnegie Apps Hackathon          | Feb 2017            |

## **RESEARCH**

**Doctoral Research**University of Pittsburgh
Aug 2021-Jan 2025

- Generative active learning, generative AI safety, dialogue systems, embodied agents,
- Sign language generation, content moderation, contextual ASR, NLP in healthcare

Research Assistant Qatar Computing Research Institute Oct 2019-Jun 2021

- Pre-trained language model (QARiB), dialect, offensive language, cross-lingual emotion detection
- Social Media Analytics Suite (ASAD), NLP processing tool (Farasa)

Research Associate Carnegie Mellon University Qatar May 2018-Sep 2021

- Co-organized MADAR shared task on Arabic dialect identification
- Characterized oracle hierarchy for small one-way finite automata

## **TEACHING**

Teaching Fellow University of Pittsburgh Jan 2025-

• Course instructor for CS 0012: Introduction to Computing

#### **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

• Intro to Natural Language Processing, Algorithms and Data Structures, Intro to Web Applications

### **Teaching Assistant**

Carnegie Mellon University

Jan 2016-May 2018

• Freshman Edge Summer Program, Great Theoretical Ideas in CS, Parallel and Sequential Data Structures and Algorithms, Fundamentals of Programming and CS, Concepts of Mathematics

Summer Internship Mentor

Qatar Computing Research Institute

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, ACL, EACL, EMNLP, IJCNLP-AACL, Journal of NLP, IEEE MM, Heilyon, ICARD
- Member, Student Academic Committee, Academic Review Board, Carnegie Mellon University Qatar

## SELECTED PUBLICATIONS [Full List: Google Scholar]

- [1] Hassan, S., Chung, H., Tan, Z., & Alikhani, M. Coherence-driven Multimodal Safety Dialogue for Embodied Agents. AAMAS, 2025
- [2] Hassan, S., Sicilia, A, & Alikhani, M. An Active Learning Framework for Inclusive Generation by Large Language Models. COLING, 2025
- [3] 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
- [4] 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]
- [5] 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. [Alexa Prize Taskbot Challenge Award]
- [6] Hassan, S. & Alikhani, M. DisCGen: A Framework for Discourse-Aware Counterspeech Generation. IJCNLP-AACL, 2023
- [7] Hassan, S. & Alikhani, M. D-CALM: A Dynamic Clustering-based Active Learning Approach for Mitigating Bias. ACL FINDINGS, 2023
- [8] Wang, Y., Donovan, H.A.S., **Hassan, S**., Alikhani, M. *MedNgage: A Dataset for Understanding Engagement in Patient-Nurse Conversations.* **ACL FINDINGS, 2023**
- [9] Ye, M., Sikka, K., Atwell, K., Hassan, S., Divakaran, A., Alikhani, M. Multilingual Content Moderation and Challenges: A Case Study of Reddit. EACL, 2023
- [10] Atwell, K.\*, Hassan, S.\*, Alikhani, M. APPDIA: A Discourse-aware Transformer-based Style Transfer Model for Offensive Social Media Conversations. COLING, 2022
- [11] Inan, M.\*, Yang, Z.\*, Hassan, S.\*, Quandt, L., & Alikhani, M. Modeling Intensification for Signed Language Generation: A Computational Approach. ACL FINDINGS, 2022
- [12] Hassan, S., Mubarak, H., Abdelali, A., & Darwish, K. *ASAD: Arabic Social Media Analytics and unDerstanding.* EACL 2021
- [13] **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]**
- [14] Bouamor, H., Hassan, S., & Habash, N. *The MADAR Shared task on Arabic Fine-Grained Dialect Identification.* WANLP, 2019. [co-organizer]
- [15] Anabtawi, M., **Hassan, S.,** Kapoutsis, C., & Zakzok, M. *An Oracle Hierarchy for Small One-way Finite Automata.* LATA, 2019
- [16] Hassan, S., Shaar, S., Raj, B., & Razak, S. *Interactive Evaluation of Classifiers Under Limited Resources.* IEEE ICMLA, 2018

<sup>\*</sup> denotes equal contribution