

Mohammad “Matt” Namvarpour

halfingwizard.me | mnamvarpour@gmail.com | [linkedin.com/in/matt-namvarpour](https://www.linkedin.com/in/matt-namvarpour)

EDUCATION

Drexel University

PhD in Information Science

Philadelphia, PA

2023-Present

- Notable Courses: Human-AI interactions, Foundations of Human-centered Computing

K. N. Toosi University of Technology

Master of Artificial Intelligence

Tehran, Iran

2020-2022

- Thesis: Speech emotion recognition using neural attention-based architectures
- Notable Courses: Machine Learning, Neural Networks, Pattern Recognition, Natural Language Processing, Speech Processing
- GPA: 18.15/20 (4/4)

Iran University of Science and Technology

Bachelor of Mechanical Engineering

Tehran, Iran

2016-2020

- GPA: 15.97/20 (3.2/4)

RESEARCH INTERESTS

Conversational User Interface (CUI) Design
Human-AI Interaction
Machine Learning
Natural Language Processing

PUBLICATIONS

Uncovering Contradictions in Human-AI Interactions

27th ACM CSCW

November 2024

Conference proceeding

- Namvarpour, M., Razi, A.
- DOI: 10.1145/3678884.3681909
- Analyzed Replika chatbot reviews through the lens of Activity Theory, uncovering systemic contradictions between user expectations and chatbot behavior. Identified misaligned objectives, insufficient safety measures, and user burden in training the AI. Findings inform ethical design improvements, emphasizing AI alignment, clearer objectives, and robust safety protocols to enhance chatbot-user interactions.

Apprentices to Research Assistants: Advancing Research with Large Language Models

April 2024

LLMs as Research Tools: Applications and Evaluations in HCI Data Work, CHI 2024 Workshop

Workshop Paper

- Namvarpour, M., Razi, A.
- arXiv:2404.06404
- Conducted a comprehensive literature review and experiments to assess the potential of Large Language Models (LLMs) in research. Identified benefits such as cost-effectiveness and efficiency, alongside challenges like prompt tuning, biases, and subjectivity. Proposed strategies to mitigate these challenges, including prompt optimization and integrating human expertise. Contributed to the dialogue on the responsible application of LLMs in research.

Exploring the Potential of Wav2vec 2.0 for Speech Emotion Recognition

July 2024

The Journal of Supercomputing, Volume 80, Issue 16

Research Article

- Nasersharif, B., Namvarpour, M.
- DOI: 10.1007/s11227-024-06158-x
- Proposed a Dimension Reduction Module (DRM) for Wav2vec 2.0 to enhance speech emotion recognition by leveraging classifier combination and attention-based feature fusion. Achieved state-of-the-art unweighted accuracies of 94.80% on EMODB, 74.00% on IEMOCAP, and 80.60% on ShEMO. Findings provide insights into applying self-supervised learning for robust emotion recognition.

PROJECTS

Shereno: A Dataset of Persian Modernist Poetry

December 2021 - January 2022

Dataset

- Available on Kaggle: kaggle.com/datasets/elhamaghakhani/persian-poems
- Web scraped from shereno.com utilizing the beautiful soup library, this collection of Persian modernist poetry includes over 4000 poems by Iranian contemporary poets. Each poem's metadata, including the title, author, and title of the book, has also been scraped.
- Created in collaboration of Ms. Elham Aghakhani, AI Student at K.N. Toosi University

Persian Questions Dataset

December 2020 - February 2021

Dataset

- Available on Kaggle: kaggle.com/datasets/halflingwizard/persian-questions
- A set of 600 simple Persian questions in 4 different categories that were hand crafted with the intention of teaching a voice assistant.
- Created in collaboration of Ms. Fatemeh Naderi, CE Student at Ferdowsi University of Mashhad

Persian (Farsi) Intent Classification and Slot Filling

October 2020 - January 2021

Deep learning model

- Github Repo: github.com/HalflingWizard/FA-Intent-Classification-and-Slot-Filling
- A Joint Model for Intent Classification and Slot Filling in Persian Language using BERT. The Keras library was used to build the neural network, and HuggingFace was used to load the ParsBERT language model, which is the Persian equivalent of the BERT language model.

LICENSES & CERTIFICATIONS

IELTS Academic Training (Overall Band Score: 8.0)

November 2021 - November 2023

IELTS Official

- Credential ID: 21IR010182NAMM120A
- Listening: 8.5
- Reading: 9.0
- Writing: 7.5
- Speaking: 7.0

Deep Learning: Applications & Tools

March 2021

IEEE Iran section

- Credential ID: 147489
- Workshop held in conjunction with 26th Computer Society International Computer Conference
- Covered topics: Review and introduction of various areas of deep learning, including machine vision, natural language and sound processing, GAN models and deep reinforcement learning systems

Deep Learning Specialization

September 2020

Coursera

- Credential ID: 89JQ3X8BNLWQ
- Composed of 4 courses: 1- Neural Networks and Deep Learning, 2- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization, and Optimization, 3- Structuring Machine Learning Projects, 4- Convolutional Neural Networks, 5- Sequence Models

Visual Elements of User Interface Design

May 2020

Coursera

- Credential ID: WWH99Z7GZHBD
- Part of the UI / UX Design Specialization
- Centered on creating and communicating meaning through the use of color, typography, and imagery to make interfaces work clearly and effortlessly, which is part of an interface designer's skill set.

HOBBIES

YouTube Channel (HalflingWizard)

April 2021 - Present

YouTube

- Channel link: youtube.com/c/HalflingWizard
- Channel contains videos about artificial intelligence, machine learning, and deep learning.

LG Global Challenger Competition 2018 Finalist

August 2018

LG Electronics DFZE, Tehran Liaison Office

- Research Expedition to China funded by LG Electronics DFZE, Tehran Liaison Office