

Elham Aghakhani

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📍 Philadelphia, PA

🌐 <http://elhamaghakhani.github.io>

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Education

- PhD Drexel University**, Information Science Jan 2024 - Now
- **Coursework:** Foundations of Human-centered Computing, Qualitative Research Methods, Data Analysis and Interpretation
- MS K.N Toosi University of Technology**, Computer Science Oct 2020 - Sep 2023
- GPA: 4/4.0
 - **Coursework:** Machine Learning, Pattern Recognition, Big Data Analysis, Reinforcement Learning
 - **Thesis:** Text Summarization using Pre-trained Language Models and Reinforcement Learning.
- BS K. N. Toosi University of Technology**, Computer Science Sep 2015 - Sep 2019
- **Thesis:** Implementing an Automatic System to Collect News from News Agencies.

Research Interests

- Natural Language Processing
- Computational Social Science
- Machine Learning

Experience

- Drexel University**, Research Assistant PA, USA Jan 2024 - Now
- Contributed to a Substance Use Disorder (SUD) project by handling the methodological aspects, designing, and developing classification models to differentiate various narratives related to SUD on Reddit.
 - Engaged in a collaborative project focusing on analyzing conversation transcripts between the therapist and patient, employing various Large Language Models (LLMs) to explore their effectiveness in transcript annotation.
 - Participated in a project aimed at extracting news from diverse agencies for frame analysis, specifically focusing on the portrayal of online child safety issues.
- K. N. Toosi University**, Teaching assistant Tehran, Iran Nov 2021 - July 2022
- Teaching assistant in 'Probabilistic Graphical Models' graduate course
 - Teaching assistant in 'Machine Learning' graduate course
 - Teaching assistant in 'Statistical Pattern Recognition' graduate course
- ERON Company**, Developer Tehran, Iran Sep 2019 - Mar 2020
- Designing and building databases, web applications, and webpages using backend technologies.
- VADA House of Mobile**, Developer Tehran, Iran Jan 2019 - Sep 2019
- Design and Implement Web Applications and APIs with PHP, Laravel

Publications

- Bouzoubaa L, **Aghakhani E**, Song M, Trinh M, Rezapour R. (2024). Decoding the Narratives: Analyzing Personal Drug Experiences Shared on Reddit. The 62nd Annual Meeting of the Association for Computational Linguistics (ACL) Findings.

Projects

Persian Question-Answering with T5

- A Question Answering model for persian QA dataset. In this project, T5 model is fine-tuned for Question Answering task using HuggingFace Transformers, pytorch Lightning & Python.
- Repo: <https://github.com/elhamaghakhani/Persian-Question-Answering-with-T5>

Shereno: A Dataset of Persian Modernist Poetry

- Web scraped from shereno.com, a large corpus of Persian modernist poems. Along with each poem, its metadata have also been scraped such as poem name, poet name and its book name.
- Repo: <https://www.kaggle.com/datasets/elhamaghakhani/persian-poems>

Sentiment Analysis of Google Play Reviews by BERT

- In this project we BERT is fine-tuned for the task of sentiment analysis of Google Play reviews. the required text pre-processing (special tokens, padding, and attention masks) and building a Sentiment Classifier using the amazing Transformers library by HuggingFace is implemented.
- Repo: <https://github.com/elhamaghakhani/Review-Analysis-by-BERT>

Job Searching website

- A job searching and posting website, implemented with PHP programming language, laravel framework and front-end web development skills. In this website, users can register, login as well as post a job or search through posted jobs by filters.
- Github Repo: https://github.com/elhamaghakhani/job_search

Certifications

Natural Language Processing, Coursera (Aug 2021):

- Credential ID: 5WUJGRXXP22V

Machine learning in python with scikit-learn, France Universite Numerique (Jul 2021):

- Credential ID: 4TD52DHM5TCD

Deep Learning workshop, IEEE Iran section (Mar 2021):

- Credential ID: 147474

Technologies

Languages: Python, Java, SQL

Libraries: Pytorch, Keras, Scikit-Learn, HuggingFace, Numpy, Pandas