MARZIA NOURI

RESEARCH INTERESTS

• NLP • LLMs • Interpretability • Responsible AI • Low-Resource NLP • Multimodal Learning

EDUCATION

Bachelor of Science in Computer Engineering

Sep 2017 - Feb 2022

Department of Electrical and Computer Engineering, Isfahan University of Technology, Isfahan, Iran

GPA: 16.34/20, 17.62/20 over the last two years

Thesis: Question Answering System Using Machine Learning, GitHub Link

Supervisor: Dr. Mehran Safayani

PUBLICATIONS

• Yu X., Dalvi F., Durrani N., **Nouri M.**, and Sajjad H., *Latent Concept-based Explanation of NLP Models*. **Accepted** at EMNLP 2024. View Paper

- Ghahroodi O., **Nouri M.*** Vali Sanian M.*, Sahebi A.*, Dastgheib D., Asgari E., Soleymani M., and Rohban M., *Khayyam Challenge (PersianMMLU): Is Your LLM Truly Wise to The Persian Language?* **In Proceedings of COLM** 2024. View Paper
- Nouri M.*, Amani M.*, Zohrabi R., and Asgari E. *The Language Model, Resources, and Computational Pipelines for the Under-Resourced Iranian Azerbaijani*. In Proceedings of AACL 2023 (Asia-Pacific ACL), View Paper
- Bahmani Z.*, Mirbeygi M.*, Hashemi N.*, **Nouri M.***, Amani M.*, Asgari E., Soleymani Baghshah M., Beigy H., and Movaghar A., *Linguistic Resources and Transformer-based Models for the Machine Translations between Luri and Yazdi Dialects versus Standard Persian*. **In Proceedings of Language and Linguistics (Journal of the Linguistics Society of Iran)**. View Paper

*denotes equal contribution

RESEARCH EXPERIENCE

Research Assistant Aug 2024 - Present

Qatar Computing Research Institute (QCRI), Doha, Qatar

Supervisor: Dr. Ehsaneddin Asgari

Organizing and structuring data in a logical framework to enhance model comprehension and performance, facilitating better contextual understanding and more efficient training for LLMs.

Research Assistant May 2024 - Present

HyperMatrix Lab, Dalhousie University, Halifax, Canada

Supervisor: Dr. Hassan Sajjad

Working on the interpretability and safety of NLP models, with ongoing research and one publication to date.

Research Assistant Apr 2023 - Apr 2024

Raia Center, Sharif University of Technology, Tehran, Iran

Supervisors: Dr. Mohammad Hossein Rohban, Dr. Mahdieh Soleymani, Dr. Ehsaneddin Asgari

Evaluated LLMs with a focus on their support for Persian, reasoning, knowledge, fairness, and RAG systems, leading to one publication.

Research Assistant

Jun 2022 - Oct 2023

Language Processing and Digital Humanities Lab, Sharif University of Technology, Tehran, Iran

Supervisor: Dr. Ehsaneddin Asgari

Developed NLP tools for Iranian languages, leading to two publications on modeling, translation, and classification.

TEACHING EXPERIENCE

Teaching Assistant Sep 2022 - Dec 2023

Sharif University of Technology, Tehran, Iran

Course: Natural Language Processing

Designed course projects and exercises, providing student support, and assisting with grading and evaluation for graduate level NLP course for three consecutive semesters.

English Teacher Oct 2023 - Aug 2024

Iran-Europe English Language Institute, Tehran, Iran

Instructed students in English language classes, including grammar, vocabulary, reading comprehension, listening, and pronunciation.

WORK EXPERIENCE

Data Scientist

Jul 2024 - Present

TapSage, London, United Kingdom

Developing and implementing generative AI solutions, with a focus on conversational AI, RAG systems, and multi-agent frameworks.

SKILLS

Languages: Azerbaijani, Persian: Native

English: IELTS: 8 (L: 8.5, R: 8.5, W: 7.5, S: 7.5),

Turkish: Intermediate

Programming Languages: Python, C, C++, T-SQL, R, Matlab, Node.js, PHP

Machine Learning and NLP Libraries: PyTorch, scikit-learn, NumPy, Pandas, spaCy, NLTK, Hugging Face

Database Management: SQL (MS SQL, SQLite), NoSQL (MongoDB)

Development and Technical Tools: Colab, Flask, Qt, Express.js, Git, LATEX

Operating Systems: Windows, Linux, macOS

CERTIFICATIONS

Generative AI with Large Language Models Nov 2023

Coursera, DeepLearning.AI, Certification Link

IELTS Teacher Training Course (TTC)

Oct 2023 - Nov 2023

Shahid Beheshti University, Tehran, Iran, Certification Link

Ask Questions to Make Data-Driven Decisions

Mar 2023 - Apr 2023

Coursera, Google Career Certificates, Certification Link

Foundations: Data, Data, Everywhere Feb 2023

Coursera, Google Career Certificates, Certification Link

REFERENCES

Sharif University of Technology

Dr. Ehsaneddin Asgari Dr. Hassan Sajjad

Scientist Associate Professor

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Dr. Mohammad Hossein Rohban Dr. Mehran Safayani

Assistant Professor Associate Professor

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Department of Electrical and Computer Engineering,

Isfahan University of Technology

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