Seyedali Mohammadi

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LinkedIn

Google Scholar

OBJECTIVE

PhD Student specializing in enhancing the reliability and interpretability of Large Language Models through NeuroSymbolic approaches and advanced information retrieval techniques. Seeking to advance the development of more consistent and explainable AI systems by bridging neural and symbolic methods while improving how AI models access and utilize knowledge.

EDUCATION

University of Maryland, Baltimore County, Baltimore, MD, US
PhD, Computer Science, August 2021 - Present   Cumulative GPA: 3.78/4.00
Advisor: Dr. Manas Gaur, **Co-advisor**: Dr. Frank Ferraro.
Islamic Azad University, Iran
Master, Computer Engineering-Artificial Intelligence,   Cumulative GPA: 3.63/4.00

RESEARCH INTEREST

Safety-enabled Learning, Explainable AI, Retrieval Augmented Generation, Generative AI, NLP, Knowledge Graphs, Machine Learning, Knowledge-infused Learning

EXPERIENCE

Internship,
Infinitus Systems, Inc.,   *May - Aug 2025*
Research Assistant,
Knowledge Infused AI and Inference Lab (KAI^2 Lab) at UMBC,   *Jun 2023 - present*
Teaching Assistant, UMBC,
Data structure and Machine Learning   *Aug 2021-May 2023*
Adjunct Professor   *Jan 2008 - Jan 2017*
Islamic Azad University (Iran), Payam Noor University (Iran)

Papers

Seyedali Mohammadi, Edward Raff, Jinendra Malekar, Vedant Palit, Francis Ferraro, and Manas Gaur. 2024. WellDunn: On the Robustness and Explainability of Language Models and Large Language Models in Identifying Wellness Dimensions. In Proceedings of the 7th BlackboxNLP Workshop: Analyzing and Interpreting Neural Networks for NLP, pages 364–388, Miami, Florida, US. Association for Computational Linguistics.

Gyrard, A., **Mohammadi, S.**, Gaur, M., & Kung, A. (2024). IoT-Based Preventive Mental Health Using Knowledge Graphs and Standards for Better Well-Being. In the Book chapter Smart Technologies for Achieving Good Health and Well-Being: Towards Sustainable Development Goal, Taylor & Francis

Mohseni S*, **Mohammadi S***, Tilwani D, Saxena Y, Ndawula GK, Vema S, Raff E, Gaur M. Can LLMs Obfuscate Code? A Systematic Analysis of Large Language Models into Assembly Code Obfuscation. InProceedings of the AAAI Conference on Artificial Intelligence 2025 Apr 11 (Vol. 39, No. 23, pp. 24893-24901). *: equal contributions.

Mohammadi, Seyedali, Hanuma, B., Lamba, H., Raff, E., Ferraro, F., Kumaraguru, P, Gaur, M. Do LLMs Adhere to Label Definitions? Examining Their Receptivity to External Label Definitions. (Submitted to **ACL 2025**).

Tilwani, D., Saxena, Y., **Mohammadi, A.**, Raff, E., Sheth, A., Parthasarathy, S., & Gaur, M. (2024). REASONS: A benchmark for REtrieval and Automated citationS Of scieNtific Sentences using Public and Proprietary LLMs. arXiv preprint arXiv:2405.02228. (Under review KDD **2025**).

Talks and Awards

EMNLP BlackboxNLP Travel Award, Invited Talk at ACM CIKM Workshop on Knowledge Graphs for Responsible AI, UMBC Graduate Student Travel Award for EMNLP 2024, Tutorial on NeuroSymbolic AI at IEEE Big Data 2024

Certifications	• **Python for Everybody** by University of Michigan on *Coursera*.

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Getting Started with Python (100%)   *Using Python to Access Web Data*(97.4%)

Python Data Structures (98.4%)   *Using Databases with Python* (98.1%)

Capstone: Retrieving, Processing, and Visualizing Data with Python(96.2%)

• **Deep Learning Specialization** by DeepLearning.AI on *Coursera*.

Neural Networks and Deep ... (100%)   *Sequence Models Neural Networks* (99%)

Improving Deep Neural Networks... (100%) *Machine Learning Projects* (96.70%)

Convolutional Neural Networks (99.50%)

SERVICES

Reviewer

Computer Applications in Engineering Education(Wiley) Journal (2020), ACM Transactions on Computing for Healthcare, AAAI'23 and AAAI'24, EMNLP'24, IEEE Intelligent Systems'24

PC member

The *Cyber Social Threats (CySoc)* workshop at the Web Conference

The *Knowledge-infused Learning* Workshop at SIGKDD Conference (2023 & 2024)

The *Knowledge Graph for Responsible AI* Workshop at CIKM (2024)