

# Ali (Seyedali) Mohammadi

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## Contact Information

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[Personal Page](#)

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## Education

**Ph.D • Computer Science** USA • University of Maryland, Baltimore County (UMBC) (2021 Aug – Present, GPA:3.81)  
Expected Graduation: Summer/Fall 2026.

Advisors: Prof. Manas Gaur and Prof. Frank Ferraro.

Thesis: Explainable Language Models.

**MSc. • Artificial Intelligence** Iran • Islamic Azad University (GPA: 3.63)

Advisor: Dr. Mahdi Yaghoobi.

Project: Facial Expression Recognition Based on Adaptive Neuro-Fuzzy Inference System.

**BSc. • Software Engineering** Iran • Islamic Azad University (GPA: 3.40)

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## Research Interest

Natural Language Processing • Machine Learning • Explainability • Robustness • AI for Health & Wellness

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## Experiences

**Internship, Infinitus Systems, Inc. • San Francisco, CA (Summer 2025)**

- Designed LingVarBench (12 weeks): a controllable synthetic data/benchmark for noisy phone calls with variation tags (e.g. pauses, noise, hesitations, self-corrections) across general (ZIP, name, DOB) and specific (vision issue, respiratory issue, pain rating) entities.
- Scaled generation & validation: produced 10k+ HIPAA-compliant transcripts leveraging GPT-4, Gemini 2.5 Pro, and DSPy SIMBA to stress-test and refine extraction prompts.
- Operationalized improvements: partnered with cross-functional teams to deploy optimized prompts, raising NER accuracy up to 12% and improving reliability in production systems.

**Research Assistant, UMBC • (2023 May – Present)**

- Lead author of a study on LLM receptivity to external label definitions, introducing definition-permutation tests and “knowledge conflict” analysis, Published at EMNLP 2025 (Main Conference).
- Lead author of WellDunn, a benchmark and analysis framework on the robustness and explainability of Large Language Models in identifying wellness dimensions, Published at EMNLP BlackboxNLP 2024.
- Lead author (equal-contribution first author) of “Can LLMs Obfuscate Code?”, a systematic study of LLM-generated assembly-code obfuscation, Published at AAAI 2025.
- Conduct research on enhancing the reliability, interpretability, and safety of LLMs through NeuroSymbolic reasoning, retrieval-augmented generation, and knowledge graph integration.
- Co-authored REASONS, a benchmark for retrieval and automated citation of scientific sentences (Arxiv 2025).
- Book chapter (Chapter 8, co-author): IoT-Based Preventive Mental Health Using Knowledge Graphs and Standards for Better Well-Being, in the edited book Smart Technologies for Sustainable Development Goals: Good Health & Well-Being (eds. A. Jose Anand, S. Krishnan). Routledge/Taylor & Francis, London, 2026.

## Publications

### **Do LLMs Adhere to Label Definitions? Examining Their Receptivity to External Label Definitions**

Seyedali Mohammadi, Bhaskara Hanuma Vedula, Hemank Lamba, Edward Raff,  
Ponnurangam Kumaraguru, Francis Ferraro, and Manas Gaur.

**ACL (EMNLP 2025, Main Conference)**

### **Can LLMs obfuscate code? A systematic analysis of large language models into assembly code obfuscation**

Seyedreza Mohseni\*, Seyedali Mohammadi\*, Deepa Tilwani, Yash Saxena, Gerald Ketu Ndawula,  
Sriram Vema, Edward Raff, Manas Gaur (\*equal contribution) **AAAI 2025**

### **WellDunn: On the Robustness and Explainability of Language Models and Large Language Models in Identifying Wellness Dimensions**

Seyedali Mohammadi, Edward Raff, Jinendra Malekar,  
Vedant Palit, Francis Ferraro, Manas Gaur **EMNLP 2024 (BlackboxNLP)**

### **LingVarBench: Benchmarking LLM for Automated Named Entity Recognition in Structured Synthetic Spoken Transcriptions**

Seyedali Mohammadi, Manas Paldhe, and Amit Chhabra **[arXiv 2025, to appear]**  
*Work conducted during internship at Infinitus Systems, Inc.*

### **Attribution in Scientific Literature: New Benchmark and Methods**

Deepa Tilwani, Yash Saxena, Seyedali Mohammadi, Edward Raff, Amit Sheth,  
Srinivasan Parthasarathy, Manas Gaur **[arXiv 2024]**

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## Book Chapter

**IoT-Based Preventive Mental Health Using Knowledge Graphs and Standards for Better Well-Being** (*Book chapter, Ch. 8*). Amelie Gyrard, **Seyedali Mohammadi**, Manas Gaur, Antonio Kung. *Smart Technologies for SDGs: Good Health & Well-Being* (eds. A. Jose Anand, S. Krishnan), Routledge/T&F, 2026. [\[Link\]](#)

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## Certification

### **• Python for Everybody**, University of Michigan (*Coursera*)

*Getting Started with Python (100%), Python Data Structures (98.4%), Using Python to Access Web Data (97.4%), Using Databases with Python (98.1%), Capstone: Retrieving, Processing, and Visualizing Data with Python (96.2%)*

### **• Deep Learning Specialization**, DeepLearning.AI (*Coursera*)

*Neural Networks and Deep Learning (100%), Improving Deep Neural Networks (100%), Convolutional Neural Networks (99.5%), Sequence Models (99%), Structuring Machine Learning Projects (96.7%)*

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## Services

**Reviewer:** Computer Applications in Engineering Education (Wiley, 2020); ACM Transactions on Computing for Healthcare; IEEE Intelligent Systems (2024); AAAI '23, '24, '26; EMNLP '24.

**Program Committee Member:** AAAI 2026 (incl. AI Alignment Track); CySoc @ The Web Conf 2023; KIL @ SIGKDD 2023–2024; KG-STAR @ CIKM 2024.