

# Parsa Hosseini

Contact: phoseini@umd.edu   Links: Website   LinkedIn   Google Scholar

## EDUCATION

- **University of Maryland** College Park, Maryland  
*PhD in Computer Science, GPA: 4.0/4.0* Aug 2024 - Present
- **Sharif University of Technology** Tehran, Iran  
*Bachelor of Computer Engineering; GPA: 19.03/20* Sep 2019 - Feb 2024

## RESEARCH INTERESTS

- Multimodal LLMs
- Reasoning
- Agentic AI and Tool Use
- Robustness

## RESEARCH EXPERIENCE

- **Graduate Research Assistant, Reliable AI Lab, University of Maryland** College Park, Maryland  
*Advisor: Prof. S Feizi* Aug 2024 - Present
  - **Research Topics:** Multimodal LLMs, Tool Use in Agentic AI
- **Intern, Okinawa Institute of Science and Technology** Okinawa, Japan  
*Mentors: Dr. M Yamada, Dr. M Sabokrou* Jul 2023 - Oct 2023
  - **Research Topics:** Trustworthy ML, Continual Learning
- **Undergraduate Research Assistant, ML Lab, Sharif University of Technology** Tehran, Iran  
*Advisor: Prof. MS Baghshah* Sep 2022 - Jan 2024
  - **Research Topics:** Out-Of-Distribution Generalization, Spurious Correlation

## PUBLICATIONS

*\* denotes equal contribution.*

- **"GHOST: Hallucination-Inducing Image Generation for Multimodal LLMs"**  
*AY Parast\*, P Hosseini\*, H Asadollahzadeh, AS Moakhar, B Azam, S Feizi, N Akhtar* [arXiv Preprint](#)
- **"Seeing What's Not There: Spurious Correlation in Multimodal LLMs"**  
*P Hosseini\*, S Nawathe\*, M Moayeri, S Balasubramanian, S Feizi* [arXiv Preprint](#)
- **"Structured Reasoning Elicits Robustness in LLMs against Reference Corruption"**  
*W Wang, P Hosseini, S Feizi* [arXiv Preprint](#)
- **"Gaming Tool Preferences in Agentic LLMs"**  
*K Faghih, W Wang, Y Cheng, S Bharti, G Sriramanan, S Balasubramanian, P Hosseini, S Feizi* [EMNLP 2025](#)
- **"Decompose-and-Compose: A Compositional Approach to Mitigating Spurious Correlation"**  
*FH Noohdani, P Hosseini\*, AY Parast\*, HY Araghi, MS Baghshah* [CVPR 2024](#)

## HONORS, AWARDS, AND TALKS

- **Dean's Fellowship**, Department of Computer Science, University of Maryland Sep 2024
- **Talk:** "Mitigating Spurious Correlation", Okinawa Institute of Science and Technology Sep 2023
- **Gold medal in Iranian Mathematical Olympiad** Sep 2018
- **Silver medal in Iranian Geometry Olympiad** Sep 2018

## SERVICE

- **ICLR Workshop Co-organizer:** Workshop on Spurious Correlation and Shortcut Learning (ICLR 2025)
- **Reviewer:** Major AI Conferences

## SKILLS SUMMARY

- **Programming:** Python, C/C++, UNIX Shell, Java, SQL, LaTeX
- **Machine Learning Frameworks:** PyTorch, TensorFlow, Hugging Face
- **AI/ML Expertise:** Multimodal LLMs, Diffusion Models, CLIP, Robustness, Spurious Correlation
- **Systems & Infrastructure:** MCP, GPU Clusters, SLURM, Virtual Machines, PostgreSQL, Git, Jupyter

## LANGUAGES

- English: Fluent
- Persian: Native
- Japanese: Elementary Proficiency

## TEACHING EXPERIENCE

- **Teaching Assistant** University of Maryland & Sharif University of Technology 2021–2024  
*Teaching Assistant for major CS courses including Machine Learning, Artificial Intelligence, Convex Optimization, Compiler Design, Probability & Statistics, and Discrete Structures.*
- **Math Olympiad Instructor** Various High Schools 2019–2024  
*Taught problem-solving and competition math to high school students; several achieved top national ranks.*