

# Parisa Kordjamshidi

## Curriculum Vitae

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🌐 <http://www.cse.msu.edu/~kordjams>

## Summary Impact

Since joining MSU in the Fall of 2019, I have established a successful independent lab, Heterogeneous Learning and Reasoning (<https://h1r.github.io/>). I was in Rising Stars at MIT EECS, 2015; obtained NSF CAREER award in 2019; Amazon Faculty Research award in 2022; and Fulbright Specialist Scholarship in 2025. I have supervised a diverse team of PhD students, post-docs, masters, and undergrad students. Of eleven Ph.D. students, one is co-advised. Four Ph.D. students have graduated during 2023-2024. During my time at MSU, I have made significant contributions to the field publishing more than 40 peer-reviewed papers. Notably, more than 80% of these papers were first-authored by my students. Furthermore, I had a leading role in developing three cutting-edge research Tutorials which are currently being expanded upon for a forthcoming book scheduled for publication in 2025. Currently, my team has multiple papers under review, demonstrating our ongoing commitment to advancing knowledge in our area of expertise. Over the past four years, I have delivered eighteen invited talks at renowned universities and research laboratories. Additionally, I have been invited as a keynote speaker for workshops at EMNLP-2023 and IJCAI-2023, AAAI-2024, further highlighting the recognition of my contributions in the field. The impact of my research efforts has been acknowledged and supported by various funding agencies. As a Principal Investigator, I have successfully secured approximately \$4.7 million in federal funding organizations such as the Office of Naval Research (2019-2023, 2023-2026) and the National Science Foundation (2019-2024). Furthermore, I have obtained several smaller grants from industry and internal funding. I have extensive experience in teaching at various universities. At MSU, I have taught 5 different courses, two undergraduate and three graduate courses. All graduate-level classes' syllabi included a substantial part with prepared lectures, See details at <https://www.cse.msu.edu/~kordjams/teaching.htm>.

## Education

- Dec 2008-Jul 2013 **Ph.D. Computer Science**, *Department of Computer Science, KULeuven*, Belgium.  
Thesis Title *Structured Machine Learning for Mapping Natural Language to Spatial Ontologies*  
Committee Marie-Francine Moens (supervisor), Dan Roth, Luc De Raedt, Luc Van Gool, Johan Suykens, Hendrik Blockeel, Tinne Tuytelaars, Martijn Van Otterlo, Adhemar Bultheel.
- 2002 **Master in Computer Engineering**, *Department of Electrical and Computer Engineering, Tarbiat Modares University*, Tehran, IRAN.  
Thesis Title *Active Learning in Text Classification*, supervisor Prof. Saeed Jalili
- 1999 **Bachelor in Computer Engineering (software)**, *Department of Computer Engineering, Isfahan University*, Isfahan, IRAN.

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## Appointments and affiliations

- August 2024-now **Associate Professor**, MICHIGAN STATE UNIVERSITY, *Computer Science and Engineering Department*.
- August 2019-July 2024 **Assistant Professor**, MICHIGAN STATE UNIVERSITY, *Computer Science and Engineering Department*.
- August 2021-Now **Affiliated Faculty, Cognitive Science Program**, MICHIGAN STATE UNIVERSITY.
- August 2020-now **Research staff member**, THE AXIA INSTITUTE: DELIVERING VALUE CHAIN SOLUTIONS, *Michigan State University*.
- August 2021-now **Research core member**, CENTER FOR INTELLIGENT WATER RESOURCES ENGINEERING, *Michigan State University*.
- August 2016-now **Research Scientist**, FLORIDA INSTITUTE FOR HUMAN AND MACHINE COGNITION (IHMC), *Pensacola, Affiliated*.
- Jan 2020-2025 **Adjunct Assistant Professor**, NORTH CAROLINA A&T, *Applied Science and Technology Department*.
- July 2016-2019 **Assistant Professor**, TULANE UNIVERSITY, *Computer Science Department*.
- August 2014-2019 **Adjunct Research Collaborator**, KULEUVEN, *Belgium*.
- Dec 2013-July 2016 **Postdoc Research Associate**, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, *Computer Science Department*.
- Jul 2013-Sep 2014 **Postdoc Research Associate**, KULEUVEN, *Computer Science Department*.
- 2000-2007 **Faculty member/Lecturer**, SHAHID CHAMRAN UNIVERSITY (AHVAZ, IRAN), ILAM UNIVERSITY (ILAM, IRAN).

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## Research Grants/Awards

- Current **Neuro-Symbolic Compositional Generalization for Language and Vision Comprehension and Grounding, Expansion proposal**, *Role: PI; Total Award Amount: \$600,000, Total Award Period: 2 years, co-PIs: Andrzej Uszok, IHMC, Date: 01/15/2025-01/14/2027.*  
Source of Support: ONR, Location: MSU
- Current **Neuro-Symbolic Compositional Generalization for Language and Vision Comprehension and Grounding**, *Role: PI; Total Award Amount: \$1,799,719.75, Total Award Period: 3 years, co-PIs: Vishnu Boddeti, Yu Kong, Date: 08/01/2023-07/31/2026.*  
Source of Support: ONR, Location: MSU
- Completed **CAREER: Combining Learning and Reasoning for Spatial Language Understanding**, *Role: PI; original amount: \$513,238, amount for MSU: \$467,580., Total Award Period: 5 years, Date: 07/01/2019-06/30/2024.*  
Source of Support: NSF, Location: MSU
- Completed **A Declarative Learning-based Programming Framework for the Integration of Domain Knowledge and Statistical Learning**, *Role: PI; Total Award original Amount: \$1,999,150, amount for MSU:\$1,798,903.31, Total Award Period: 4 years, co-PIs From IHMC: James Allen, Brent Venable and Choh-Man Teng, Date: 04/08/2019-10/31/2023.*  
Source of Support: ONR, Location: MSU

- Current **Natural Language Processing methods to identify key terms in history gathering and physical examination based on patients notes written by medical students**, *Role: coPI; Total Award original Amount: \$25k, Total Award Period: 1 year, Date: 09/01/2023-8/31/2024.*  
Source of Support: AMA ChangeMedEd Innovation Grant Program, Location: MSU, PI: Ling Wang
- Current **Evaluating Effects of Automatic Feedback Aligned to a Learning Progression to Promote Knowledge-In-Use**, *Role: Key personnel, \$2,046,509, PI: Kevin Haudek, 2022-2026.*  
Source of Support: National Science Foundation, Location: MSU
- Current **Collection of a preliminary dataset to demonstrate the effectiveness of our conversational agent in medical clinics serving rural Michigan**, *In collaboration with the Department of Media and Information, Role: co-PI, PI: Young Anna Argyris, amount: \$10,000, 2024-2025.*  
Source: Trifecta Initiative Facilitating Funds Award, Location MSU
- Completed **Natural Language Instruction Following in Realistic Visual Environments**, *Role: PI; Total Award original Amount: \$60k including \$30k credit, Total Award Period: 1 year, Date: 09/01/2022-8/31/2023.*  
Source of Support: Amazon Faculty Research Award, Location: MSU
- Completed **Clinical Competency in Objective Structured Clinical Examinations Using Natural Language Processing**, *Role: co-PI; Total Award original Amount: \$25k, Total Award Period: 1 year, Date: 02/01/2023-01/31/2024.*  
Source of Support: National Board of Medical Examiners® (NBME®), Location: MSU, PI: Chi Chang
- Completed **Integration of Expert Knowledge into Prediction Models for Supply Chain**, *Role: PI; Total Award Amount: \$80,000, Total Award Period: 1 year, Date: 12/01/2021-11/30/2022.*  
Source of Support: Axia Institute/Dow Chemical Company, Location: MSU
- Completed **SCH: AI Supported Health Misinformation Management**, *In collaboration with the Department of Media and Information, Role: co-PI, PI: Wei Peng, amount: \$8000, 2022-2023.*  
Source: Trifecta Initiative Facilitating Funds Award, Location MSU
- Completed **Peripheral nerve-on-a-chip for predictive preclinical pharmaceutical testing**, *Role: Co-investigator, Total Award Amount: \$1,783,333, Total Award Period: 2 years, Date: 01/07/2017-31/06/2019.*  
Source of Support: NIH/NCATS; Location: Tulane University, PI: Micheal Moore

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## Other Honors

- 2025 Fulbright Specialist
- 2022 Amazon Faculty Research Award
- 2019 NSF CAREER award
- 2019 Poster award, Michigan AI Symposium, "most impactful to AI" poster.
- 2018 Best Reviewer Award, Empirical Methods in Natural Language Processing, (EMNLP-2018), top 7%.
- 2017 Invited to Ernst Strüngmann Forum on Interactive Task Learning: Agents, Robots, and Humans Acquiring New Tasks through Natural Interaction, May 21-26, 2017, in Frankfurt, Germany.

- Nov 2015 Rising Stars, MIT Department of EECS.
- Sep 2013-Sep 2014 Mobility research travel grant, KULeuven.
- Sep 2013-Sep 2014 BOF, Postdoctoral mandate grant, KULeuven, based on my research proposal on biomedical text mining.
- Dec 2008-July 2013 BOF, PhD grant, KULeuven, DTAI/LIIR.
- 2008 EUSFLAT student grant for 12th conference on information processing and management of uncertainty in knowledge-based systems, 2008-Malaga, Spain.
- 2006 Distinguished researcher, among faculty members of computer science department, Ilam university.
- 1999 First ranked in BSc in computer engineering/software at Isfahan University 1999.
- 1994 First ranked in computer Olympiad, provincial level, Ilam province, Iran.
- 1994 Distinguished student, diploma in mathematics and physics, High school.

## Teaching

See Details: <https://www.cse.msu.edu/~kordjams/teaching.htm>

**CSE 895: Selected Topics: Large Language Models**, *Michigan State University*, **Spring 2025**, graduate level.

**CSE 404: Introduction to Machine Learning**, *Michigan State University*, **Fall 2024, Spring 2023, Spring 2022** .

**CSE 891: Selected Topics: Large Language Models**, *Michigan State University*, **Spring 2024**.

**CSE 842: Natural Language Processing**, *Michigan State University*, **Fall 2023, Fall 2022, Fall 2021**.

**CSE 440: Introduction to Artificial Intelligence**, *Michigan State University*, **Spring 2021, Fall 2019**.

**CSE 891: Structured Machine Learning for Natural Language Processing**, *Michigan State University*, **Spring 2020**.

**CMPS 4720/6720: Machine Learning**, *Tulane university*, **Spring 2019, Spring 2018, Spring 2017**.

**CMPS 3240/6240: Introduction to Machine Learning**, *Tulane university*, **Fall 2016, Fall 2017**.

**CMPS 1600: Introduction to Computer Science II**, *Tulane university*, **Fall 2018**.

**CMPS 7020-04/06: Research in Computer Science**, *Tulane university*, **Fall 2018, Fall 2017**.

**A Tutorial on Learning-based Programming Language –LBJava**, *two guest sessions of Machine learning course, CS446, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN*, **Fall 2015**.

**Text-based information retrieval, teaching two sessions**, *Master of computer science, KULEUVEN, Leuven, Belgium*, **Spring 2013**.

2009–2012 **Teaching assistant, Machine Learning and Inductive Inference**, *Master of Artificial Intelligence, KULEUVEN, Leuven, Belgium*.

2000–2007 **Undergrad courses in CSE**, *ILAM UNIVERSITY AND SHAHID CHAMRAN UNIVERSITY, IRAN*, (below list, these are before having a PhD in the lecturer role.).

- Theory of machines and languages
- System analysis and design
- Machine language/system programming
- Programming in Pascal
- Basics of computer
- Digital circuits lab
- Supervisor of BSc and MSc thesis and final projects
- Principles of database design
- Machine learning (special topics)
- Advanced programming in c++
- Basics of computer programming
- Supervision Principles
- Database lab

## Invited talks

- Mar 2025 **Keynote speaker at NLP@Michigan day**, *Title: TBD.*  
Upcoming
- Feb 2025 **Invited talk at University of Pennsylvania**, *Title: TBD*, CLunch talks.  
Upcoming
- Feb 2025 **Invited talk at University of Drexel**, *Title: TBD.*  
Upcoming
- Dec 2024 **Invited lecture at Winter School organized by the Saudi Data and AI Authority (SDAIA) research center**, *focusing on Multimodal Large Language Models (MM-LLMs), (SWS 2024, Riyadh).*
- June 2024 **Invited talk at Stanford Vision and Learning Lab**, *Title: Compositional Reasoning for Natural Language Comprehension and Grounding Leveraging Neuro-Symbolic AI.*
- May 2024 **Midwest Machine Learning Symposium, Invited Talk**, *Title: Compositional Reasoning over Natural Language Leveraging Neuro-Symbolic AI, May 21, 2024.*
- May 2024 **Mila Tea Talks, Invited speaker**, *Title: Compositional Reasoning for Natural Language Comprehension and Grounding Leveraging Neuro-Symbolic AI, May 17th, 2024.*
- Feb 2024 **Keynote speaker at International workshop on Neuro-Symbolic Learning and Reasoning in the Era of Large Language Models, co-located with AAAI 2024, February 26th, 2024**, *Title: Compositional Reasoning for Natural Language Comprehension and and Grounding Leveraging Neuro-Symbolic AI.*
- Feb 2024 **Colorado Boulder CS Colloquium, February 20th, 2024**, *Title: Compositional Reasoning for Natural Language Comprehension and and Grounding Leveraging Neuro-Symbolic AI.*
- Dec 2023 **Keynote speaker at International workshop of Spatial Language Understanding and Grounded Communication for Robotics (SpLU-RoboNLP), co-located with EMNLP 2023, Dec 6th, 2023**, *Title: Exploiting Domain Knowledge and Modular Semantics in Deep Learning for Natural Language Comprehension and Grounding.*
- September 2023 **Invited speaker at Cognitive Forum, Psychology Department, Michigan State University, 15th September. 2023**, *Title: Spatial and Temporal Reasoning for Natural Language Comprehension and Grounding.*
- September 2023 **Invited presentation at workshop of Declarative Programming in Biology and Medicine (DeclMed) 2023, colocated with ICFP conference, 9th September. 2023**, *Title: Declarative Programming for Designing Neuro-Symbolic Learning Models.*
- August 2023 **Keynote speaker at International Workshop of Spatio-Temporal Reasoning and Learning co-located with IJCAI-2023, 19th August. 2023**, *Title: Spatial and Temporal Reasoning with LLMs for Natural Language Comprehension and Grounding.*

- May 2023 **Invited talk at University of Vienna, CS Department Seminars, 12th May. 2023**, Title: Exploiting Domain Knowledge and Modular Semantics in Deep Learning for Natural Language Comprehension and Grounding.
- April 2023 **Invited talk at AI Seminars, University of Michigan, 4th April. 2023**, Title: Exploiting Domain Knowledge and Modular Semantics in Deep Learning for Natural Language Comprehension and Grounding.
- Oct 2022 **Invited talk at Graduate School of DataScience, Seoul National University, South Korea, 17th Oct 2022**, Title: Exploiting Domain Knowledge and Modular Semantics in Deep Learning for Natural Language Comprehension and Grounding.
- May 2022 **Invited talk at Computer Science Department, KU Leuven, Belgium, 30th May 2022**, Title: Exploiting Domain Knowledge and Relational Semantic Structures in Deep Learning for Natural Language Understanding.
- Sep 2021 **Invited talk, virtual, at University of Pittsburgh, Computer Science Department, Sep 25th 2021**, Title: Exploiting Domain Knowledge and Relational Semantic Structures in Deep Learning for Natural Language Understanding.
- Feb 2021 **Invited talk, virtual, at University of California Irvine, Computer Science Departmental Colloquium, Feb 12th 2021**, Title: Declarative Learning based Programming for Deep Learning and Reasoning over Natural Language.
- May 2020 **Invited talk, virtual, Los Alamos National Lab, May 6th 2020**, Title: Declarative Learning based Programming for Structured Learning with Unstructured Data .
- April 2020 **Invited talk, virtual, Relational AI (co), April 28th 2020**, Title: Declarative Learning-Based Programming as an Interface to AI Systems.
- February 2020 **Dagstuhl Seminar, Germany, February 27th 2020**, Title: Declarative Learning-Based Programming as an Interface to AI Systems.
- April 2019 **Invited talk for Student Chapter of the Association for Women in Mathematics (AWM), April 11th, 2019**, Tulane University, Title: "Declarative Learning-based Programming for Learning and Reasoning over Spatial Language".
- March 2019 **Invited Seminar for School of Public Health and Tropical Medicine, March 25th, 2019**, Tulane University, Title: "Declarative Learning based Programming for Structured Machine Learning with Unstructured Data".
- August 2018 **Keynote talk in GIScience 2018 Workshop on "Corpus in GIScience: Going Beyond Butterfly Collecting", August 28th, 2018**, Melbourne, Australia. Title: Corpus-based Spatial Information Extraction from Natural Language.
- August 2018 **General Departmental Seminar, Monash University, Faculty of Information Technology., August 29th, 2018**, Melbourne, Australia. Title: Declarative Learning based Programming for Spatial Language Understanding.
- March 2018 **Departmental Seminar at University at Buffalo-SUNY, CS department, Title: Declarative Learning based Programming for Spatial Language Understanding.**
- March 2017 **Invited talk, Weekly Seminars in Computing and Software, Declarative Learning based Programming for Structured Machine Learning with Unstructured Data, March 28th**, McMaster University, Canada.
- Nov 2015 **Rising Stars: An Academic Career Workshop for Women, Nov 9-10**, MIT Department of EECS, Saul: Towards declarative learning based programming.
- Nov 2015 **AAAI-2015 Fall Symposium, Nov 12-14**, The Westin Arlington Gateway, Arlington, Virginia, Saul: Towards declarative learning based programming.

- July 2015 **Invited talk at Workshop on Replicability and reproducibility in Natural Language Processing: adaptive methods, resources and software**, at *IJCAI-2015*, Buenos Aires, Declarative Learning Based Programming for Natural Language Processing.
- May 2015 **Invited talk at International Workshop on Knowledge Discovery from (Big) Text: Challenges and Opportunities when Mining Biomedical Text**, *KULeven*, Belgium, Structured Learning for Spatial Information Extraction from Biomedical Text.
- April 2015 **Weekly seminar, University of Illinois at Urbana-Champaign, US**, Database & Information Systems, Structured Learning for Spatial Information Extraction from Biomedical Text.
- Jan 2014 **Weekly seminar, Artificial intelligence and information systems**, *Structured Learning for Mapping Natural Language to Spatial Ontologies*, University of Illinois at Urbana-Champaign, US.
- Dec 2010 **Keynote lecture, Workshop on Machine Learning for Spatial Language Interpretation**, Title: *Machine Learning for Spatial Language Interpretation*, The University of Bremen, Bremen, Germany.

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## Most Recent Panel Discussions

- April 2024 **Discussion Panel, Invited participant**, *AI and Education Research Mixer*, Local symposium, Michigan State University.
- Feb 2024 **Discussion Panel, Invited participant**, *Workshop on Neuro-Symbolic Learning and Reasoning in the Era of Large Language Models (NuClear) at AAIL-2024*.
- Jan 2023 **Discussion Panel, Invited participant, Symposium on AI Writing**, Title: *The implications of advances in AI for the education sector*, Organizers: STEM Teaching Fundamentals group, Michigan State University.
- Dec 2022 **Discussion Panel, Moderator, Workshop on "Combining Learning and Reasoning: Programming Languages, Formalisms, and Representations**, *co-located with AAIL-2022, Feb-2022*.
- Dec 2021 **Discussion Panel, Moderator, Workshop on Databases and AI, Dec 13**, *co-located with NeurIPS-2021*.
- Aug 2021 **Discussion Panel, Invited participant, Workshop on Spatial Language Understanding and RoboNLP**, *co-located with ACL-2021*.

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## Publications

[<sup>1</sup>: my grad-student, <sup>2</sup>:my postdoc ]

### Journals

1. Yue Zhang<sup>1</sup>, Ziqiao Ma, Jialu Li, Yanyuan Qiao, Zun Wang, Joyce Chai, Qi Wu, Mohit Bansal, **Parisa Kordjamshidi**. Vision-and-Language Navigation Today and Tomorrow: A Survey in the Era of Foundation Models, *Transactions on Machine Learning Research (TMLR)*, 2024.
2. Sania Sinha<sup>1</sup>, Tanawan Premisri<sup>1</sup>, **Parisa Kordjamshidi**. Survey on Compositional Learning of AI Models: Theoretical and Experimental Practices, *Transactions on Machine Learning Research (TMLR)*, 2024.
3. Josue Kpodo<sup>1</sup>, **Parisa Kordjamshidi**, A. Pouyan Nejadhashemi. AgXQA: A Benchmark for Advanced Agricultural Extension Question Answering. *Computers and Electronics in Agriculture*, Elsevier, Oct. 2024
4. **P. Kordjamshidi**, D. Roth, K. Kersting. Declarative Learning-Based Programming as An Interface to AI Systems. *Frontiers in Artificial Intelligence*, 2022
5. Benyamin Ahmadnia, Bonnie J. Dorr, **Parisa Kordjamshidi**. Knowledge Graphs Effectiveness in Neural Machine Translation Improvement, *Computer Science*, Volume 21, Number 3 (4 July 2020)

6. Gebrehiwot, Asmamaw; Hashemi-Beni, Leila; Thompson, Gary; **Kordjamshidi, Parisa**; Langan, Thomas E. 2019. Deep Convolutional Neural Network for Flood Extent Mapping Using Unmanned Aerial Vehicles Data. *Sensors* 19, no. 7: 1486.
7. **P. Kordjamshidi**, M. F. Moens. Global Machine Learning for Spatial Ontology Population. *Web Semantics: Science, Services and Agents on the World Wide Web. Semantic Search*, volume 30, 2015, p 3-21.
8. **P. Kordjamshidi**, D. Roth, and M.-F. Moens. Structured Learning for Spatial Information Extraction from Biomedical Text: Bacterium-Habitat Localization. *BMC-Bioinformatics*, 2015 (16:129).
9. **P. Kordjamshidi**, M. van Otterlo, and M. F. Moens. Spatial role labeling: Towards extraction of spatial relations from natural language. *ACM Transactions on Speech Language Processing*, 8:1-36, December 2011.

#### Book/Book Chapters/Contributions

10. Kevin A. Gluck and John E. Laird (2019). Interactive Task Learning: Humans, Robots, and Agents Acquiring New Tasks through Natural Interactions (Strüngmann Forum Reports), **Contributed author**. MIT Press.
11. **P. Kordjamshidi**, M. van Otterlo, and M. F. Moens (2017). Spatial Role Labeling Annotation Scheme, In: Pustejovsky J., Ide N. (Eds.), *Handbook of Linguistic Annotation* Springer Verlag. [Book chapter]
12. **P. Kordjamshidi**, J. Hois, M. van Otterlo, and M. F. Moens. Learning to interpret spatial natural language in terms of qualitative spatial relations. *Representing space in cognition: Interrelations of behavior, language, and formal models. Series Explorations in Language and Space*, Tenbrink T. (Ed.), Wiener J. (Ed.), Claramunt C. (Ed.), Oxford University Press, 2013. [Book chapter]
13. **P. Kordjamshidi**, Getting to know the computer for non-computer students. ISBN:964-8798-24-9, in Persian, published in Iran, Summer 2006.[Book]

#### Peer-Rev./Competitive Conferences

14. Danial Kamlai<sup>1</sup>, Elham Barezi, **Parisa Kordjamshidi**. NeSyCoCo: A Neuro-Symbolic Concept Composer for Compositional Generalization, *AAAI-2025*.
15. Aliakbar Nafar<sup>1</sup>, Kristen Brent Venable, **Parisa Kordjamshidi**. Reasoning over Uncertain Text by Generative Large Language Models, *AAAI-2025*.
16. Yue Zhang<sup>1</sup>, **Parisa Kordjamshidi**. Narrowing the Gap between Vision and Action in Navigation, *Proceedings of ACM Multimedia Conference*, Oct. 2024.
17. Hossein Rajabi Faghihi<sup>1</sup>, Aliakbar Nafar<sup>1</sup>, Andrzej Uszok, Hamid Karimian, **Parisa Kordjamshidi**. Prompt2DeModel: Declarative Neuro-Symbolic Modeling with Natural Language. *Neural-Symbolic Learning and Reasoning: 18th International Conference, NeSy 2024, Barcelona, Spain, September 9–12, 2024, Proceedings, Part II*.
18. Aliakbar Nafar<sup>1</sup>, Brent Venable and **Parisa Kordjamshidi**. Teaching Probabilistic Logical Reasoning to Transformers, *EACL Findings*, 2024.
19. Yue Zhang<sup>1</sup>, Quan Guo, and **Parisa Kordjamshidi**. NavHint: Vision and Language Navigation Agent with a Hint Generator, *EACL Findings*, 2024.
20. Hossein Rajabi Faghihi<sup>1</sup>, and **Parisa Kordjamshidi**. Consistent Joint Decision-Making with Heterogeneous Learning Models, *EACL Finding*, 2024.
21. Guangyue Xu<sup>1</sup>, Joyce Chai and **Parisa Kordjamshidi**. GIPCOL: Graph-Injected Soft Prompting for Compositional Zero-Shot Learning, *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2024.
22. Guangyue Xu<sup>1</sup>, **Parisa Kordjamshidi** and Joyce Chai. MetaReVision: Meta-Learning with Retrieval for Visually Grounded Compositional Concept Acquisition, *The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP-2023, Findings)*
23. Roshanak Mirzaee<sup>1</sup> and **Parisa Kordjamshidi**. Disentangling Extraction and Reasoning in Multi-hop Spatial Reasoning. *The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP-2023, Findings)*.
24. Yue Zhang<sup>1</sup>, **Parisa Kordjamshidi**. VLN-Trans: Translator for the Vision and Language Navigation Agent. *The 61st Annual Meeting of the Association for Computational Linguistics (ACL-2023)*.
25. Hossein Rajaby Faghihi<sup>1</sup>, **Parisa Kordjamshidi**, Choh Man Teng and James Allen. The Role of Semantic Parsing in Understanding Procedural Text. *The 2023 European conference in the field of computational linguistics (EACL-2023, Findings)*.
26. Hossein Rajaby Faghihi<sup>1</sup>, Aliakbar Nafar, Chen Zheng, Roshanak Mirzaee, Yue Zhang, Andrzej Uszok, Alexander Wan, Tanawan Prensri, Dan Roth, and **Parisa Kordjamshidi**. GLUECons: A Generic Benchmark for Learning Under Constraints. *The 37th Conference of Artificial Intelligence (AAAI-2023)*.
27. Roshanak Mirzaee<sup>1</sup> and **Parisa Kordjamshidi**. Transfer Learning with Synthetic Corpora for Spatial Semantic Role Labeling and Reasoning. *The 2022 Conference on Empirical Methods in Natural Language Processing*



(EMNLP-2022)

28. Chen Zheng<sup>1</sup> and **Parisa Kordjamshidi**. Dynamic Relevance Graph Network for Knowledge-Aware Question Answering. THE 29TH INTERNATIONAL CONFERENCE ON COMPUTATIONAL LINGUISTICS, (COLING-2022)
29. Yue Zhang<sup>1</sup> and **Parisa Kordjamshidi**. LOViS: Learning Orientation and Visual Signals for Vision and Language Navigation, THE 29TH INTERNATIONAL CONFERENCE ON COMPUTATIONAL LINGUISTICS (COLING-2022)
30. Chen Zheng<sup>1</sup> and **Parisa Kordjamshidi**. Relevant CommonSense Subgraphs for "What if..." Procedural Reasoning. 60th Annual Meeting of the Association for Computational Linguistics (ACL-2022 findings)
31. Kareem Ahmed, Tao Li, Thy Ton, Quan Guo, Kai-Wei Chang, **Parisa Kordjamshidi**, Vivek Srikumar, Guy Van den Broeck, Sameer Singh. PYLON: A PyTorch Framework for Learning with Constraints. 36th Conference of Artificial Intelligence (AAAI-2022 demo track)
32. Kareem Ahmed, Tao Li, Thy Ton, Quan Guo, Kai-Wei Chang, **Parisa Kordjamshidi**, Vivek Srikumar, Guy Van den Broeck, Sameer Singh. PYLON: A PyTorch Framework for Learning with Constraints. Proceedings of the NeurIPS 2021 Competitions and Demonstrations Track, PMLR, Vol. 176, pp. 319–324, Series: Proceedings of Machine Learning Research, Editors: Kiela, Douwe and Ciccone, Marco and Caputo, Barbara, (2022)
33. Hossein Rajaby Faghihi<sup>1</sup>, Quan Guo, Andrzej Uszok, Aliakbar Nafar, Elaheh Raisi, **Parisa Kordjamshidi**. DomiKnowS: A Library for Integration of Symbolic Domain Knowledge in Deep Learning, EMNLP-2021, Demo Track.
34. Chen Zheng<sup>1</sup> and **Parisa Kordjamshidi**. Relational Gating for "What If" Reasoning , The 30th International Joint Conference on Artificial Intelligence (IJCAI-2021).
35. Roshanak Mirzaee<sup>1</sup>, Hossein Rajaby Faghihi, Qiang Ning, and **Parisa Kordjamshidi**. SpartQA: A Textual Question Answering Benchmark for Spatial Reasoning, The 2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-2021).
36. Hossein Rajaby Faghihi<sup>1</sup> and **Parisa Kordjamshidi**. Time-Stamped Language Model: Teaching Language Models to Understand The Flow of Events, The 2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-2021).
37. Chen Zheng<sup>1</sup> and **Parisa Kordjamshidi**. SRLGRN: Semantic Role Labeling Graph Reasoning Network, The 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP-2020).
38. Quan Guo<sup>2</sup>, Hossein Rajaby Faghihi, Yue Zhang, Andrzej Uszok, **Parisa Kordjamshidi**. Inference-Masked Loss for Deep Structured Output Learning, the 29th International Joint Conference on Artificial Intelligence (IJCAI-2020).
39. Chen Zheng<sup>1</sup>, Quan Guo, **Parisa Kordjamshidi**. Cross-Modality Relevance for Reasoning on Language and Vision, Annual Conference of the Association for Computational Linguistics (ACL-2020).
40. Soham Dan, **Parisa Kordjamshidi**, Julia Bonn, Archana Bhatia, Martha Palmer and Dan Roth. From Spatial Relations to Spatial Configurations, Language Resources and Evaluation Conference (LREC-2020).
41. H. Karimian, K. Pollard, M. J. Moore, **P. Kordjamshidi**. Semantic Segmentation of Microengineered Neural Tissues, 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), 2019.
42. **P. Kordjamshidi**, D. Roth, K. Kersting. Systems AI: A declarative learning based programming perspective. The 27th International Joint Conference on Artificial Intelligence (IJCAI-2018).
43. Benyamin Ahmadnia, **Parisa Kordjamshidi**, Neural Machine Translation Advised by Statistical Machine Translation: The Case of Farsi-Spanish Bilingually Low-Resource Scenario, ICMLA, 2018.
44. Taher Rahgooy<sup>1</sup>, Umar Manzoor, **P. Kordjamshidi**, Visually Guided Spatial Relation Extraction from Text. The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT-2018).
45. **P. Kordjamshidi**, T. Rahgooy, M-F. Moens, J. Pustejovsky, U. Manzoor and K. Roberts. CLEF 2017: Multimodal Spatial Role Labeling (mSpRL) Task Overview. LNCS volume 10456 on Experimental IR Meets Multilinguality, Multimodality, and Interaction; Proceedings of 8th International Conference of the CLEF Association.
46. **P. Kordjamshidi**, C. Christodoulopoulos, D. Khashabi, B. Mangipudi, S. Singh, D. Roth. Better call Saul: Flexible Programming for Learning and Inference in NLP, COLING-2016.
47. M. Sammons, C. Christodoulopoulos, **P. Kordjamshidi**, D. Khashabi, V. Srikumar and D. Roth. EDISON: Feature Extraction for NLP, Simplified. LREC-2016.
48. **P. Kordjamshidi**, D. Roth, H. Wu, (2015). Saul: Towards declarative learning based programming. International Joint Conference of Artificial Intelligence (IJCAI 2015).
49. **P. Kordjamshidi**, W. Massa, T. Provoost, M.-F. Moens, (2015). Machine Reading for Extraction of Bacteria and Habitat Taxonomies. Lecture Notes in Computer Science (LNCS), Communications in Computer and Information Science (CCIS) series, Springer-Verlag, 2015.

50. W. Massa, **P. Kordjamshidi**, T. Provoost and M.F. Moens (2015). Machine Reading of Biological Texts: Bacteria-Biotope Extraction. In Proceedings of BIOINFORMATICS 2015 Conference (**candidate for best paper award**).
51. Y. Song, H. Peng, **P. Kordjamshidi**, M. Sammons, D. Roth (2015). Improving a Pipeline Architecture for Shallow Discourse Parsing. Proc. of the Conference on Computational Natural Language Learning (CoNLL2015) Shared Task.
52. G. Glavas, J. Snaider , **P. Kordjamshidi**, and M.F. Moens (2014). HiEve: A Corpus for Extracting Event Hierarchies from News Stories. In Proceedings of the 9th Language Resources and Evaluation Conference. ELRA.
53. **P. Kordjamshidi**, P. Frasconi, M. van Otterlo, M. F. Moens, L. De Raedt (2012). Relational learning for spatial relation extraction from natural language. In Muggleton, S. (Ed.), Tamaddoni-Nezhad, A. (Ed.), Lisi, F. (Ed.), Inductive Logic Programming: Vol. 7207. ILP. (pp. 204-220). Berlin Heidelberg: Springer.
54. **P. Kordjamshidi**, M. F. Moens (2012). Spatial role labeling using structured support vector machines. Proceedings of 21st Belgian-Dutch conference on machine learning (BeneLearn): vol. 21. Belgian-Dutch conference on machine learning (BeneLearn). Ghent, 24-25 May, 71-71. (Poster)
55. **P. Kordjamshidi**, J. Hois, M. van Otterlo, and M. F. Moens. Machine learning for interpretation of spatial natural language in terms of QSR. Poster at the 10th International Conference on Spatial Information Theory (COSIT'11), 2011.
56. **P. Kordjamshidi**, P. Frasconi, M. van Otterlo, M. F. Moens, L. De Raedt (2011). Spatial relation extraction using relational learning. Latest Advances in Inductive Logic Programming. ILP. Windsor Great Park, United Kingdom, 31 July-3rd August (pp. 1-6).
57. **P. Kordjamshidi**, M. van Otterlo, and M. F. Moens. Spatial role labeling: Task definition and annotation scheme. In LREC'10, 2010.
58. **P. KordJamshidi**, B. De Baets, G. De Tré. Prototype-based classification by fuzzification of cases. IPMU08. 2008.

#### Peer-Reviewed workshops

59. Syntax-Guided Transformers: Elevating Compositional Generalization and Grounding in Multimodal Environments. Danial Kamali, **Parisa Kordjamshidi**. EMNLP-2023 workshops, The first workshop on (benchmarking) generalization in NLP (GenBench, 2023).
60. Explicit Object Relation Alignment for Vision and Language Navigation. Yue Zhang<sup>1</sup> and **Parisa Kordjamshidi**. 60th Annual Meeting of the Association for Computational Linguistics Student Research Workshop (ACL SRW 2022).
61. Guangyue Xu<sup>1</sup>, **Parisa Kordjamshidi** and Joyce Chai. Zero-Shot Compositional Concept Learning. ACL-2021 workshop on MetaNLP.
62. Yue Zhang<sup>1</sup>, Quan Guo and **Parisa Kordjamshidi**. Towards Navigation by Reasoning over Spatial Configurations. ACL-2021 workshop on SpLU-RoboNLP.
63. Hossein Rajaby Faghihi<sup>1</sup>, Roshanak Mirzaee, Sudarshan Paliwal and Parisa Kordjamshidi. Latent Alignment of Procedural Concepts in Multimodal Recipes. Workshop on Advances in Language and Vision Research at (ACL-2020).
64. Hamid R. Karimian, Kevin J. Pollard, Michael J. Moore and **Parisa Kordjamshidi**. Neural Learning Representations to Augment Statistical Analysis of Drug Treatment Effects on Bioengineered Microphysiological Nerve Tissue, AAAI-2020 workshop on Health Intelligence.
65. Quan Guo<sup>2</sup>, Andrzej Uszok and **Parisa Kordjamshidi**. From Ontologies to Learning-Based Programs. DeLBP workshop colocated with IJCAI-2019.
66. Soham Dan, **Parisa Kordjamshidi**, Julia Bonn, Archana Bhatia, Martha Palmer and Dan Roth. From Spatial Relations to Spatial Configurations. splu-robotnlp workshop, co-located at NAACL-2019, non-archival.
67. **Parisa Kordjamshidi**, Archana Bhatia, James Pustejovsky, Marie-Francine Moens, Proceedings of the first International workshop on Spatial Language Understanding (Editors), co-located with NAACL-HLT, 2018.
68. Umar Manzoor<sup>2</sup>, **Parisa Kordjamshidi**, Anaphora Resolution for Improving Spatial Relation Extraction from Text. The first international workshop on Spatial Language Understanding (SpLU-2018), co-located with NAACL HLT 2018. New Orleans, June 2018.
69. **Parisa Kordjamshidi**, Sameer Singh, Daniel Khashabi, Christos Christodoulopoulos, Mark Sammons, Saurabh Sinha and Dan Roth. Relational Learning and Feature Extraction by Querying over Heterogeneous Information Networks. UAI-2017, Workshop on Statistical Relational AI (StarAI).
70. **P. Kordjamshidi**, T. Rahgooy, U. Manzoor. Spatial Language Understanding with Multimodal Graphs using

- Declarative Learning based Programming. EMNLP-2017, Workshop on Structured Prediction for NLP.
71. **P. Kordjamshidi**, D. Roth. Declarative Learning Based Programming, Reports of the 2016 AAAI Workshop Program, AI Magazine, Vol. 37 Issue 3.
  72. J. Pustejovsky, **P. Kordjamshidi**, M-F Moens, A. Levine, S. Dworman, Z. Yocum, (2015). SemEval-2015 Task 8: SpaceEval. Proceedings of the 9th International Workshop on Semantic Evaluation (SemEval 2015).
  73. **P. Kordjamshidi** and M. F. Moens (2013). Designing Constructive Machine Learning Models based on Generalized Linear Learning Techniques. In Proceedings of the NIPS Workshop on Constructive Machine Learning, Lake Tahoe, Nevada.
  74. **P. Kordjamshidi** and M. F. Moens (2013). Structured Learning for Mapping Natural Language to Spatial Calculi Models. NIPS Workshop on Constructive Knowledge Extraction from Text (KET), Lake Tahoe, Nevada.
  75. **P. Kordjamshidi** and M. F. Moens (2013). Structured machine learning for mapping natural language to spatial ontologies. In Proceedings of the International Workshop on Advances in Regularization, Optimization, Kernel Methods and Support Vector Machines (ROKS 2013).
  76. O. Kolomiyets, **P. Kordjamshidi**, S. Bethard and M. F. Moens, 2013. SemEval-2013 Task 3: Spatial Role Labeling. In Proceedings of the Second Joint Conference on Lexical and Computational Semantics (\*SEM), Volume 2: Proceedings of the Seventh International Workshop on Semantic Evaluation (SemEval 2013), pp. 255-262, Atlanta, Georgia, USA, ACL.
  77. **P. Kordjamshidi**, S. Bethard, and M. F. Moens. Semeval-2012 task 3: Spatial role labeling. In SEM 2012: The First Joint Conference on Lexical and Computational Semantics, Volume 2: Proceedings of the Sixth International Workshop on Semantic Evaluation (SemEval 2012), pages 365-373. Association for Computational Linguistics, 2012.
  78. **P. Kordjamshidi**, M. van Otterlo, and M. F. Moens. From language towards formal spatial calculi. In Workshop on Computational Models of Spatial Language Interpretation (CoSLI 2010, at Spatial Cognition 2010), 2010.
  79. **P. KordJamshidi**, B. De Baets, G. De Tré. Active learning by measuring different types of uncertainty with probabilistic classifiers.( not published), 2008.
  80. G. De Tré, T. Matthé, **P. KordJamshidi**, M. Demoor (2007). On the use of case based reasoning techniques in flexible querying (invited paper). 18th International Workshop on Database and Expert Systems Applications, 2007, 345-349.
  81. S. Jalili, **P. Kord Jamshidi**. Active learning with labeled and unlabeled documents in text categorization (ITCC 2003), 28-30 April 2003, Las Vegas, NV, USA. IEEE Computer Society
  82. S. Jalili, **P. Kordjamshidi**. Applying automatic active text classification in categorization of Iran's Historical Documents. Conference of documents and history of Iran Dec 2002, Tehran, Iran (in Persian language).
  83. S. Jalili, **P. Kordjamshidi**. Text categorization based on machine learning techniques. Conference of information technology and optimization of telecommunication industry, Sep 2002 Isfahan, Iran (in Persian language).
  84. S. Jalili, **P. Kordjamshidi**. Active text classification and using unlabeled documents. International computer conference of computer society of Iran CSICC2003, Mashhad, Iran (in Persian language).
  85. Q. Guo<sup>2</sup>, A. Uszok, Y. Zhang, **P. Kordjamshidi** From Ontologies to Learning-based Programs. Michigan AI Symposium, University of Michigan, October 19, 2019, (**Poster**, awarded as the "Most Impactful to AI").
  86. Pollard KJ, Karimian HR, Curley LJ, **Kordjamshidi P**, and Moore MJ. Rapid in-vitro detection of drug-induced peripheral neuropathy through electrophysiological and histological analysis of 3D microphysiological "nerve-on-a-chip" cultures. Society for Neuroscience Conference, Chicago, IL, October 19-23, 2019.

## Professional Activities

### Editorial

- July 2016-present **Member of editorial board of Journal of Artificial Intelligence Research (JAIR).**
- July 2024-present **Action Editor, Transactions of the Association for Computational Linguistics (TACL).**
- 2021-present **Action Editor ACL rolling review (ARR) system.**
- Oct-2018-present **Editorial Board of Machine Learning and Artificial Intelligence, part of the journal Frontiers in Artificial Intelligence and Frontiers in Big Data, Review Editor.**
- May-2023-present **Editorial Board of Geoinformatics for Frontiers in Earth Science journal, Review Editor.**

### Panel

- NSF Panel, Robust Intelligence, core program, 2025
- NSF Panel, SBIR/STTR program, 2025

- NSF Panel, Robust Intelligence, core program, 2024
- NSF Panel, NSF early CAREER award proposals, 2023
- NSF Panel, Graduate Research Fellowship Program, 2022
- NSF Panel, SBIR/STTR Program, 2025, 2022, 2021,2020
- NSF Panel, Robust Intelligence Program, 2019

### Reviewer

- Leibniz Programme for Women Professors (grant proposals), 2022
- Swiss National Science Foundation (SNSF), 2017-present
- Graduate and undergraduate program of Department of Computer Science Texas A&M-Commerce, 2018
- Tenure review for Colorado College (a national liberal arts college), 2017

### Tutorial

- 2025 **Learning Language through Grounding, Freda Shi, Ziqiao Ma, Jiayuan Mao, Parisa Kordjamshidi and Joyce Chai**, *In NAACL-2025*, May 2025, New Mexico. Upcoming
- 2024 **Spatial and Temporal Language Understanding: Representation, Reasoning, and Grounding**, *In NAACL-2024*, in collaboration with James Pustejovsky, Marie-Francine Moens, Qiang Ning, Summer 2024.
- 2022 **Spatial Language Understanding: Representation, Reasoning, and Grounding**, *In COLING-2022*, in collaboration with James Pustejovsky, Marie-Francine Moens, Oct. 2022, South Korea.
- 2020 **Representation, Learning and Reasoning on Spatial Language for Downstream NLP Tasks**, *In Empirical Methods in Natural Language Processing (EMNLP-2020)*, in collaboration with James Pustejovsky, Marie-Francine Moens, Nov. 2020, Dominican Republic.

### Organizing/Co-Organizing Workshops/Conferences

- 2025 **NAACL-2025**, *Organizing Committee*, Visa Chair.
- 2024 **Organizing Committee of the International Joint Workshop on Spatial Language Understanding (SpLU) and RoboNLP**, *co-located with ACL-2024*, August 2024.
- 2024 **Organizing Committee of the International Workshop on Spatio-Temporal Reasoning and Learning (STRL)**, *co-located with IJCAI-2024*.
- 2024 **EACL-2024, Faculty Advisor to Student Research Workshop Chairs**.
- 2024 **AAAI-2024, Best Student Abstract Award Committee**.
- 2024 **AAAI-2024, Co-Chair for Student Activities**.
- 2022 **Diversity and Inclusion Committee (Academic Inclusion co-chair) of NAACL-2022**, July-2022.
- 2022 **Organizing Committee of the workshop on "Combining Learning and Reasoning: Programming Languages, Formalisms, and Representations**, *co-located with AAAI-2022*, Feb-2022.
- 2021 **Organizing Committee of workshop on Databases and AI**, *co-located with NeurIPS-2021*, Dec 6-14.
- 2021 **Organizing Committee of The 2021 Conference on Empirical Methods in Natural Language Processing**, *servicing as workshop chair*, Nov 7-11.
- 2021 **Organizing Committee of the Second International Joint workshop on Spatial Language Understanding and RoboNLP**, *co-located with ACL-2021*, August 1-6.
- 2020 **Organizing Second workshop on Spatial Language Understanding**, *co-located with Empirical Methods in Natural Language Processing*, Nov 11-12, Dominican Republic, Organizer.

- 2019 **Organizing 4th Workshop on Declarative Learning Based Programming**, *In the International Joint Conference of Artificial Intelligence, 2019, Macao, China*, August 12th, Chair.
- 2019 **Production & Publicity, Public Relations Chair**, *The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD)*, Würzburg, Germany, 16th-20th September 2019.
- 2019 **Organizing Joint workshop on Spatial Language Understanding and RoboNLP**, *co-located with 17th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2019)*, June 6-7, Minnesota, USA, Chair.
- 2019 **Organizing workshop on Cognitive Vision: Integrated Vision and AI for Embodied Perception and Interaction**, *co-located with the Seventh Annual Conference on Advances in Cognitive Systems (ACS 2019)*, August 2, Cambridge, Massachusetts, USA, co-organizing.
- 2018 **Local Sponsorships and Exhibits Chair**, *16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2018)*, June 1-6, New Orleans, Louisiana.
- 2018 **Organizing First workshop on Spatial Language Understanding**, *co-located with 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2018)*, June 1-6, New Orleans, Louisiana. Chair.
- 2018 **Organizing Workshop on Cognitive Vision and AI for Embodied Perception and Interaction**, *co-located with IJCAI-ECAI 2018*, July 13, Stockholm, Sweden, Co-organizer.
- 2018 **Organizing 3rd Workshop on Declarative Learning Based Programming**, *In the Thirty-Second AAAI Conference on Artificial Intelligence, 2018, USA*, February 2-3, New Orleans, Louisiana. Chair.
- 2017 **Organizing 2nd Workshop on Declarative Learning Based Programming**, *In 26th International Joint Conference of Artificial Intelligence*, August 19th, Melbourne, Australia, Chair.
- 2017 **Organizing Multimodal Spatial Role Labeling**, *In CLEF-2017 Conference and Labs of the Evaluation Forum*, September 11-14, Dublin, Ireland, Chair.
- 2016 **Organizing 1st Workshop on Declarative Learning Based Programming**, *In thirtieth AAAI Conference on Artificial Intelligence(AAAI-16)*, February 12-17, Phoenix, Arizona, USA. Chair.
- 2015 **Organizing SpaceEval shared task at International Workshop on Semantic Evaluation, SpaceEval**, *SemEval 2015*.
- 2013 **Organizing SpRL shared task at International Workshop on Semantic Evaluation, Spatial role labeling shared task**, *SemEval 2013*.
- 2012 **Organizing shared task at International Workshop on Semantic Evaluation, Spatial role labeling shared task**, *SemEval 2012*, Montreal, Canada.  
I organized the first workshop for spatial information extraction formulating a new task and benchmarking called Spatial Role Labeling in the workshop of Semantic Evaluation
- 2005 **Local workshop on Search engines**, *Ilam University, Ilam, IRAN*.

### Area Chair (AC)/Senior Program Committee (SPC)/Program Committee (PC)

- Senior Area Chair, AAAI-2025.
- Senior Area Chair of NAACL-2025, NLP Applications Track
- Program Committee, ICLR-2025
- Senior Area Chair of EMNLP-2024, NLP applications Track.
- Senior Area Chair of NAACL-2024 -Information Extraction Track.
- Action Editor, ACL Rolling Review -2024.

- Area Chair of LREC-COLING-2024 joint conference.
- Area Chair of ECML PKDD 2024.
- Senior Program Committee of AACL-2024.
- Program Committee, Conference on Language Modeling (COLM), 2024
- Program Committee NeurIPS 2024
- Program Committee of International Conference on Machine Learning ICML-2024
- Program Committee of International Conference on Learning Representations ICLR-2024
- Area chair of ACL-2023 on Machine Learning for NLP track.
- Area chair of ECMLP-PKDD 2023, Applied Data Science track.
- Senior Program Committee of AACL-2023
- Action Editor, ACL Rolling Review -2023
- Program committee of IJCAI-2023
- Program Committee of NeurIPS-2023
- Program Committee of CoNLL-2023
- Program Committee of Workshop on Spatio-Temporal Reasoning and Learning (STRL 2023) at IJCAI-2023.
- Program Committee of Workshop on Declarative Programming in Biology and Medicine (DeclMed) 2023.
  
- **The rest is summarized per year.**
- Senior Area Chair: NAACL-2022, track of Language Grounding to Vision, Robotics and Beyond; Area Chair: COLING-2022, ECML-PKDD 2022; Senior PC: AACL-2022; Program Committee: IJCAI-2022, IJCAI-ECAI Doctoral Program-2022, Structured NLP-2022, ACL Student Research Workshop, NeurIPS InterNLP 2022 workshop, EMNLP-2022 demo track, Action Editor of ACL-rolling review 2022.
- Area chair at ACL-2021 for Information extraction; Senior PC: IJCAI-2021; PC: AACL-2021, CoNLL-2021, EACL-2021, SPNLP workshop at ACL-2021
- Program committee, Women+ Data Science Symposium, 2020-2021, Michigan State University
- Area chair at ACL-2020 for Language Grounding to Vision, Robotics and Beyond; PC: AACL-2020, IJCAI-2020, CoNLL-2020, EMNLP-2020, SPNLP workshop at EMNLP-2020, CoLING-2020, LANTERN workshop at CoLING, ACL-2020 SRW workshop mentoring, Woman+Data Science at MSU
- SPC: AACL-2019, PC: NAACL-2019, IJCAI-2019, ACL-2019, EMNLP-2019, CoNLL-2019, SPNLP workshop-2019 at NAACL, SEM\*-2019
- PC: IJCAI-2018, AACL-2018, LREC-2018, ACL-2018, COLING-2018, EMNLP-2018
- PC: EACL-2017, AACL-2017, EMNLP-2017, IJCNLP-2017, COSIT-2017-workshop on Speaking of Location.
- PC: COLING-2016, IJCAI-2016, AACL-2016
- PC: The 53rd Annual Meeting of the Association for Computational Linguistics and The 7th International Joint Conference of the Asian Federation of Natural Language Processing (ACL-IJCNLP 2015).
- PC: 21st European Conference on Artificial Intelligence (ECAI 2014).
- PC: ECML/PKDD 2014, workshop on *Multi-target prediction*.
- The 18th ACM SIGKDD International Conference on Knowledge Discovery and DataMining (KDD12).
- PC: Workshop: ECML/PKDD 2014, workshop on Multi-target prediction
- PC: International Workshop on Semantic Evaluation (2015, 2013, 2012)
- Reviewer: AACL-2010

## Journal Review

- Frontiers in Artificial Intelligence
- Journal of Spatial Science
- Spatial Cognition and Computation: An Interdisciplinary Journal
- Journal of Artificial Intelligence Research (JAIR)
- International Journal of Approximate Reasoning
- Language Resources and Evaluation (LREV)
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- Expert Systems With Applications (Journal)
- Natural Language Engineering (Journal)
- Journal of Experimental and Theoretical Artificial Intelligence
- Journal of AI Communications
- Computational and Mathematical Methods in Medicine
- Book: Chapter review for Handbook of Linguistic annotation (2014)
- Intelligent Data Analysis, Special Issue on Business Analytics in Finance and Industry, 2014.
- Iranian Journal of Electrical and Computer Engineering (IJECE).ijece@iust.ac.ir

## Other outreach and mentoring activities

- Mentoring workshop: Aligning Expectations and Optimizing Communications Seminar, Fall 2023
- Outreach activity: Invited evening talk for the MSU community initiative Gown and Town. Title: Spatial and Temporal Reasoning for Natural Language Comprehension and Grounding, Fall 2023
- Outreach activity: Invited evening talk at Lansing AI User Group. Title: Spatial and Temporal Reasoning for Natural Language Comprehension and Grounding, Fall 2023
- MSU Research Foundation Data science summit, October 2023. Invited to chair a breakout session on AI and Education.
- Attending DARPA workshop on AI-Forward, summer 2023, Boston, with full travel scholarship.
- Organizing Birds of a Feather session on Information Extraction, EACL 2023, NAACL-2022: Gathering experts and newbies and discussing a research topic.
- Advising Committee of Girls who Code, MSU, 2021
- Participation in Effective Teaching Workshop at MSU, January 2020.
- Mentoring at conferences Doctoral consortium including IJCAI-2024, IJCAI-2023, IJCAI-2022, AACL-2018
- Mentoring Student Research Workshop (SRW) ACL-2019, ACL-2020, ACL-2021, ACL-2023; NAACL-2021
- Mentoring student research papers at COLING-2018 conference.
- Chairing conference sessions, ACL-2021, ACL-2023, AACL-2023, EMNLP-2022, NAACL-2022, most of the attended conferences.
- Chairing conference sessions, IJCAI-2019, AACL-2018

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## Advising/Mentoring

### Doctoral supervision

- Chen Zheng, 2018-Dec 2022, graduated.
- Guangyue Xu, 2019-April 2024, graduated.
- Hossein Faghihi, 2019- April 2024, graduated.
- Roshanak Mirzaee, 2019-April 2024, graduated.
- Juan Castro Garcia, 2020-current
- Yue Zhang, 2020-current

- Aliakbar Nafar, 2021-current
- Danial Kamali, 2022-current
- Josue Kpodo, 2021-current, co-advised
- Tanawan, Prensri, 2023-current
- Tiany, Ma, 2024-current

#### Post-Doctoral supervision

- Elham Jebal Barezi, Sep 2022-August 2024.
- Elaheh Raisi, Nov 2020-May 2021.
- Quan Guo, Feb 2019-Nov 2020.

#### Master thesis supervision

- 2021 Sushanta Kumar Pani, Co-reference resolution for downstream NLP tasks, May 2021 graduated, Michigan State University

2010–2015

- Spatial Role Labeling based on ISO-Space 1.5 annotation scheme, a Convolutional Neural Network approach, Mahmoud Ammar, Sep. 2015. (Under Professor Marie-Francine Moens, KULeuven)
- Machine Reading of Biological Texts, Wouter Massa, June 2014. (Under Professor Moens, KULeuven)
- Ontology-based information extraction, Melih Tuzunoglu, 2013. (Under Professor Moens, KULeuven)
- Active learning for spatial information extraction, Marzieh Hosseinpour, 2013. (Under Professors Moens and Luc De Raedt)
- Preposition disambiguation using relational learning, Behrouz Eslami Shahr Babaki, 2012. (Under professors Luc De Raedt and Moens)
- Extraction of motion verbs for instructing an autonomous robot using statistical relational learning, Maarten Tielemans en Pieter-Jan Speelmans, 2011. (Under Professors De Raedt and Moens)

#### Undergrad supervision

- 2023 Undergraduate thesis co-advisor, Akshar Tumu, Computer Science at Birla Institute of Technology and Science, Pilani, India.
- 2020-2024 Undergraduate Professorial Assistants (PA): Trevor Steven, Timothy Moran, Sania Sinha, Mensah Lemuel, Toluani Oshin, Ailin Patimar, Divyalakshmi Varadha.
- 2022-2023 Undergrad Summer Interns: Tanawan Prensri, Joe Romain, Alexander Wan
- 2016-2018 Supervised 19 students for Capstone project, computer science coordinate major, Tulane University.

#### Doctoral Committee Member and Examiner

- Kim Michelle, Department of Computer Science and Engineering at MSU, Defense TBD.
- Ritam Guha, Department of Electrical and Computer Engineering at MSU, Defense TBD.
- Nest Tan, The University of Auckland, Defense in Nov. 2024.
- Ruth Heo, Department of Communication Arts and Science at MSU, Defense, Dec. 2024.
- Junwen Chen, Department of Computer Science at MSU, Graduated April 2024.
- 2022, Narjes Askarian, Department of Information Technology, Monash University, Australia. Defended. (Doctoral Thesis Examiner. )
- 2020, Mehdi Ghanimifard, Department of Philosophy, Linguistics and Theory of Science University of Gothenburg, Sweden. Defended. Served as Opponent –a key role who presents the work and questions the student.
- 2019, Asmamaw Gebrehiwot, Department of Built Environment, North Carolina A&T. Defended



- 2019, Hanieh Poostchi Mohammadabadi, Computer science, University of Technology Sydney, Australia. Defended. (Doctoral Thesis Examiner)

### Master Thesis Committee

- 2022, Morgan Sandler, Computer Science Engineering, MSU, Defended.
- 2021, Achshah Ledala, Computer Science and Engineering, MSU, Defended.
- 2020, Anna Paula Pawlicka Maule, Computer Science and Engineering, MSU, Defended.

### Other services

- Trifecta Initiative Advisory Committee, 2024-2025, MSU
- SPG panel member, 2022-2023, MSU
- Trifecta Initiative Advisory Committee, 2022-2023, MSU
- Member of Graduate Studies and Research Committee, MSU, 2019, 2020, 2021
- Member of hiring committee for Tenure-Track faculty, CS, Tulane University, 2016-2019.
- Member of hiring committee for Research Programmer, CS, UIUC, 2015.

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## Software

Github <https://hlr.github.io/domiknows-nlp/>  
<https://github.com/HLR>, including the code of Saul library for declarative learning based programming and SpRL for spatial role Labeling  
<https://github.com/HLR/HetSaul> , <https://github.com/HLR/SpRL>

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## Languages

Persian **Native**  
Kurdish **Native**  
English **Advanced**  
Dutch **Intermediate**  
Arabic **Intermediate**