

Parisa Kordjamshidi

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Curriculum Vitae

Research Interests

Machine learning, Artificial Intelligence, Natural language processing, Information extraction

Spatial Information Extraction, Combining Vision and Language

Statistical Relational Learning, Structured Output Prediction, Probabilistic Graphical Models, Deep Learning, Combining Symbolic and Subsymbolic Learning, Using Domain Knowledge, Common Sense and Ontologies in Statistical Learning

Learning Based Programing, Probabilistic Programing

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.
- Sep-Dec 2008 **Pre-doctoral**, *Department of Computer Science, KULeuven, Belgium.*
- 2000-2002 **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
- 1994 -1998 **Bachelor in Computer Engineering (software)**, *Department of Computer Engineering, Isfahan University, Isfahan, IRAN.*
- Jun 1994 **Diploma in Mathematics and Physics**, *High School, Ilam, IRAN.*

Appointments and affiliations

- August 2019-now **Assistant Professor**, MICHIGAN STATE UNIVERSITY, *Computer Science and Engineering Department.*
- 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**, IHMC, *Pensacola.*
- Jan 2020-now **Adjunct Assistant Professor**, NORTH CAROLINA A&T, *Applied Science and Technology Department.*
- August 2019-now **Adjunct Assistant Professor**, TULANE UNIVERSITY, *Computer Science Department.*
- July 2016-2019 **Assistant Professor**, TULANE UNIVERSITY, *Computer Science Department.*

- August 2014-2019 **Free 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**, SHAHID CHAMRAN UNIVERSITY (AHVAZ, IRAN), ILAM UNIVERSITY (ILAM, IRAN).

Research Grants/Awards

- Current **A Declarative Learning based Programming Framework for the Integration of Domain Knowledge and Statistical Learning**, *Role: sole PI; Total Award Amount: \$1,999,150, Total Award Period: 4 years, Date: 04/08/2019-10/31/2023.*
Source of Support: ONR, Location MSU
- Current **CAREER: Combining Learning and Reasoning for Spatial Language Understanding**, *Role: sole PI, amount \$513,238., Total Award Period: 5 years, Date: 01/07/2019-31/06/2024.*
Source of Support: NSF, Location MSU
- Peripheral nerve-on-a-chip for predictive preclinical pharmaceutical testing**, *Role: Co-investigator, Total Award Amount: \$1,783,333, Total Award Period: 2 years, Location: Tulane University, Date: 01/07/2017-31/06/2019.*
Source of Support: NIH/NCATS; FTE: 9%.

Other Honors/Grants

- 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 Invited to talk in Rising Stars: An Academic Career Workshop for Women, 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-Dec 2012 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

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

- Spring 2021 **CSE 440: Introduction to Artificial Intelligence**, *Michigan State University*.
- Spring 2020 **CSE 891 (special topics): Structured Machine Learning for Natural Language Processing**, *Michigan State University*.
- Fall 2019 **CSE 440: Introduction to Artificial Intelligence**, *Michigan State University*.
- Spring 2019 **CMPS 4720/6720: Machine Learning**, *Tulane university*.
- Fall 2018 **CMPS 1600: Introduction to Computer Science II**, *Tulane university*.
- Spring 2018 **CMPS 4720/6720: Machine Learning; CMPS 7020-04: Research in Computer Science**, *Tulane university*.
- Fall 2017 **CMPS 3240/6240: Introduction to Machine Learning; CMPS 7020-06: Research in Computer Science**, *Tulane university*.
- Spring 2017 **CMPS 4720/6720: Machine Learning**, *Tulane university*.
- Fall 2016 **CMPS 3240/6240: Introduction to Machine Learning**, *Tulane university*.
- 2015 **A Tutorial on Learning-based Programming Language –LBJava**, *two guest sessions of Machine learning course*, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN.
- 2013 **Text-based information retrieval, exercises**, *Master of computer science*, KULEUVEN, Leuven, Belgium.
- 2009–2012 **Teaching machine Learning and Inductive Inference, exercises**, *Master of Artificial Intelligence*, KULEUVEN, Leuven, Belgium.
- 2000–2007 **Undergrad courses in CSE**, ILAM UNIVERSITY AND SHAHID CHAMRAN UNIVERSITY, IRAN, (below list).
- Theory of machines and languages
 - System analysis and design
 - Machine language/system programming
 - Programming in Pascal
 - Basics of computer
 - Digital circuits lab
 - Supervisory of BSc and MSc thesis and final projects
 - Principles of database design
 - Machine learning
 - Advanced programming in c++
 - Basics of computer programming
 - Supervision Principles
 - Database lab

Invited talks

- 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 **Declarative Learning based Programming for Structured Machine Learning with Unstructured Data**, *Weekly Seminars in Computing and Software*, March 28th, McMaster University, Canada.
- Nov 2015 **Saul: Towards declarative learning based programming**, *Rising Stars: An Academic Career Workshop for Women*, Nov 9-10, MIT Department of EECS.
- Nov 2015 **Saul: Towards declarative learning based programming**, *AAAI-2015 fall symposium*, Nov 12-14, The Westin Arlington Gateway, Arlington, Virginia.
- July 2015 **Declarative Learning Based Programming for Natural Language Processing**, *Workshop on Replicability and reproducibility in Natural Language Processing: adaptive methods, resources and software*, at IJCAI-2015, Buenos Aires.
- May 2015 **Structured Learning for Spatial Information Extraction from Biomedical Text**, *International Workshop on Knowledge Discovery from (Big) Text: Challenges and Opportunities when Mining Biomedical Text*, KULeven, Belgium.
- April 2015 **Structured Learning for Spatial Information Extraction from Biomedical Text**, *University of Illinois at Urbana-Champaign*, US, Database & Information Systems, weekly seminar.
- Jan 2014 **Structured Learning for Mapping Natural Language to Spatial Ontologies**, *University of Illinois at Urbana-Champaign*, US, Artificial intelligence and information systems weekly seminars.
- Dec 2010 **Machine Learning for Spatial Language Interpretation**, *The University of Bremen*, Bremen, Germany.
Workshop on Machine Learning for Spatial Language Interpretation

Publication

Under Submission P. Kordjamshidi, D. Roth, K. Kersting. Declarative Learning-Based Programming as An Interface to AI Systems.

Journals Benyamin Ahmadnia, Bonnie J. Dorr, Parisa Kordjamshidi. Knowledge Graphs Effectiveness in Neural Machine Translation Improvement, *Computer Science*, Volume 21, Number 3 (4 July 2020)

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.

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.

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).

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 Chapters/Contributions 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.

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.

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.

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.

Peer-Rev./Competitive Conferences Chen Zheng and Parisa Kordjamshidi. Relational Gating for "What If" Reasoning , The 30th International Joint Conference on Artificial Intelligence (IJCAI-2021).

Roshanak Mirzaee, 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).

Hossein Rajaby Faghihi 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).

Chen Zheng and Parisa Kordjamshidi. SRLGRN: Semantic Role Labeling Graph Reasoning Network, The 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP-2020).

Quan Guo, 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).

Chen Zheng, Quan Guo, Parisa Kordjamshidi. Cross-Modality Relevance for Reasoning on Language and Vision, Annual Conference of the Association for Computational Linguistics (ACL-2020).

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).

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.

P. Kordjamshidi, D. Roth, K. Kersting. Systems AI: A declarative learning based programming perspective. The 27th International Joint Conference on Artificial Intelligence (IJCAI-2018).

Benyamin Ahmadnia, **Parisa Kordjamshidi**, Neural Machine Translation Advised by Statistical Machine Translation: The Case of Farsi-Spanish Bilingually Low-Resource Scenario, ICMLA, 2018.

Taher Rahgooy, 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).

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.

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.

M. Sammons, C. Christodoulopoulos, **P. Kordjamshidi**, D. Khashabi, V. Srikumar and D. Roth. EDISON: Feature Extraction for NLP, Simplified. LREC-2016.

P. Kordjamshidi, D. Roth, H. Wu, (2015). Saul: Towards declarative learning based programming. International Joint Conference of Artificial Intelligence (IJCAI 2015).

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.

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**).

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.

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.

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.

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)

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.

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).

P. Kordjamshidi, M. van Otterlo, and M. F. Moens. Spatial role labeling: Task definition and annotation scheme. In LREC'10, 2010.

P. KordJamshidi, B. De Baets, G. De Tré. Prototype-based classification by fuzzification of cases. IPMU08. 2008.

Peer-Reviewed workshops Guangyue Xu, Parisa Kordjamshidi and Joyce Chai. Zero-Shot Compositional Concept Learning. ACL-2021 workshop on MetaNLP.

Yue Zhang, Quan Guo and Parisa Kordjamshidi , Towards Navigation by Reasoning over Spatial Configurations. ACL-2021 workshop on SpLU-RoboNLP.

Hossein Rajaby Faghihi, 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).

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.

Quan Guo, Andrzej Uszok and **Parisa Kordjamshidi**. From Ontologies to Learning-Based Programs. DeLBP workshop colocated with IJCAI-2019.

Soham Dan, **Parisa Kordjamshidi**, Julia Bonn, Archana Bhatia, Martha Palmer and Dan Roth. From Spatial Relations to Spatial Configurations. splu-robonlp workshop, co-located at NAACL-2019, non-archival.

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.

Umar Manzoor, **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.

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).

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.

- P. Kordjamshidi**, D. Roth. Declarative Learning Based Programming, Reports of the 2016 AAIL Workshop Program, AI Magazine, Vol. 37 Issue 3.
- J. Pustejovsky, **P. Kordjamshidi**, M-F Moens, A. Levine, S. Dworman, Z. Yocum, (2015). SemEval-2015 Task 8: SpaceEval. SemEval2015.
- 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.
- 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.
- 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).
- 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.
- 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.
- 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.
- P. KordJamshidi**, B. De Baets, G. De Tré. Active learning by measuring different types of uncertainty with probabilistic classifiers.(not published), 2008.
- 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.
- Earlier** 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
- 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).
- 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).
- 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).
- Book** P. Kordjamshidi, Getting to know the computer for non-computer students. ISBN:964-8798-24-9, in Persian, published in Iran, Summer 2006.

Posters Q. Guo, A. Uszok, Y. Zhang, **P. Kordjamshidi** From Ontologies to Learning-based Programs. Michigan AI Symposium, University of Michigan, October 19, 2019, (awarded as the "Most Impactful to AI").

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 2016-2019 **Member of editorial board of Journal of Artificial Intelligence Research (JAIR).**

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.**

Panel

- NSF Panel, SBIR/STTR Program, 2021
- NSF Panel, SBIR/STTR Program, 2020
- NSF Panel, Robust Intelligence Program, 2019

External Reviewer

- Swiss National Science Foundation (SNF), 2017/2018/2019
- Graduate and under graduate program of department of computer science Texas A&M-Commerce, 2018
- Tenure review for Colorado College (a national liberal arts college), 2017

Tutorial

2020 **Representation, Learning and Reasoning on Spatial Language for Downstream NLP Tasks**, *Co-located with 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

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 **Second International Joint workshop on Spatial Language Understanding and RoboNLP**, *co-located with ACL-2021*, August 1-6.

2020-2021 **Women+ Data Science Symposium**, April 17, 2020, Michigan State University, co-Organizer.

2020 **Second workshop on Spatial Language Understanding**, *co-located with Empirical Methods in Natural Language Processing*, Nov 11-12, Dominican Republic, Organizer.

2019 **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 **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 **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 **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 **Workshop on Cognitive Vision and AI for Embodied Perception and Interaction**, *co-located with IJCAI-ECAI 2018*, July 13, Stockholm, Sweden, Co-organizer.
- 2018 **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 **2nd Workshop on Declarative Learning Based Programming**, *In 26th International Joint Conference of Artificial Intelligence*, August 19th, Melbourne, Australia, Chair.
- 2017 **Multimodal Spatial Role Labeling**, *In CLEF-2017 Conference and Labs of the Evaluation Forum*, September 11-14, Dublin, Ireland, Chair.
- 2016 **1st Workshop on Declarative Learning Based Programming**, *In thirtieth AAAI Conference on Artificial Intelligence(AAAI-16)*, February 12-17, Phoenix, Arizona, USA. Chair.
- 2015 **International workshop on Semantic Evaluation, SpaceEval shared task**, *SemEval 2015*.
- 2013 **International workshop on Semantic Evaluation, Spatial role labeling shared task**, *SemEval 2013*.
- 2012 **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 **Search engines**, *Ilam University*.
Ilam, IRAN

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

- Senior PC: AAAI-2022

- Area chair at ACL-2021 for Information extraction; Senior PC: IJCAI-2021; PC: AAAI-2021, CoNLL-2021, EACL-2021, SPNLP workshop at ACL-2021

- 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).
- Workshop: ECML/PKDD 2014, workshop on Multi-target prediction
- International Workshop on Semantic Evaluation (2015, 2013, 2012)
- Reviewer: AACL-2010

Other conference activities

- Mentoring for ACL Student Research Workshop 2021; Chairing conference sessions at ACL-2021; Mentoring for NAACL-2021 SRW
- Mentoring for ACL Student Research Workshop 2020
- IJCAI-2019, chairing conference sessions
- Mentoring Committee for the Student Research Workshop (SRW) at ACL 2019
- AACL-2018, chairing three sessions on Natural Language and Machine Learning
- Mentoring at AACL-2018 Doctoral consortium
- Paper mentoring at COLING-2018
- Chairing sessions at the main technical program AACL-2018, Machine learning, Language, NLP

Journal Reviewer

- 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
- 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

Thesis Supervision/Project Advisory

Doctoral supervision

- Chen Zheng, current
- Yue Zhang, current
- Roshanak Mirzaee, current
- Guangyue Xu, current
- Hossein Faghihi, current
- Darius Nafar, current
- Juan Castro Garcia, current

Doctoral Committee Member

- 2020, Mehdi Ghanimifard, Department of Philosophy, Linguistics and Theory of Science University of Gothenburg, Sweden. Served as Opponent.
- 2019, Asmamaw Gebrehiwot, preliminary, Department of Built Environment, North Carolina A&T.
- Jan 2019 defended, Hanieh Poostchi Mohammadabadi, Computer science, University of Technology Sydney, Australia. (Doctoral Thesis Examiner)
- Nov 2017, preliminary, Jaelle Scheuerman, PhD candidate, Tulane CS department.

Master Thesis Committee

- 2020, Emily Louise Dolson, Computer Science and Engineering, MSU

Undergrad supervision

2020-2021 Timothy Moran, PA

2016-2017

- Capstone project, computer science coordinate major, Tulane University. (5 students 2016, 5 students 2017, 4 students 2018)

Master thesis supervision

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

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)

Other services

- Member of Graduate Studies and Research Committee, MSU, 2019, 2020, 2021
- Member of hiring committee for Research Programmer, CS, UIUC, 2015.
- Member of hiring committee for tenure track faculty, CS, Tulane University, 2016-2019.

Recent meetings and conferences attended/will attend

- Dagstuhl Seminar on SE4ML-Software Engineering for AI/ML-based Systems, Germany, Feb 2020.
- ICLR-2019, IJCAI-2019, ACL-2019, NAACL-2019.
- Fall 2018 NSF Grants Conference, New Orleans, Nov. 8-9.
- Fall 2018 CRA Career Mentoring Workshop, Phoenix, AZ, Nov. 3-4.
- GIScience 2018 Workshop on "Corpus in GIScience: Going Beyond Butterfly Collecting", August 28th, 2018, Melbourne, Australia.
- NSF CISE CAREER Proposal Writing Workshop, NSF headquarters, April 9, 2018.
- The 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence, IJCAI-ECAI 2018, July 15-19, 2018, Stockholm, Sweden.
- The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2018), June 1-6, 2018, New Orleans, Louisiana, USA.
- The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18) will be held February 2-7, 2018, New Orleans, Louisiana, USA.
- CLEF-2017: Conference and Labs of the Evaluation Forum, Information Access Evaluation meets Multilinguality, Multimodality, and Visualization, 11-14 September 2017, Dublin-Ireland.
- EMNLP 2017: Conference on Empirical Methods in Natural Language Processing, September 7-11, 2017, Copenhagen, Denmark.
- The Conference on Uncertainty in Artificial Intelligence (UAI), Statistical Relational Learning Workshop (StarAI), Sydney, Australia, August 2017.
- The 26th International Joint Conference on Artificial Intelligence (IJCAI), Melbourne, Australia, August 2017.
- Ernst Strüngmann Forum on Interactive Task Learning: Agents, Robots, and Humans Acquiring New Tasks through Natural Interaction, May 21-26, 2017, in Frankfurt, Germany.
- The 26th International Conference on Computational Linguistics, COLING-2016, Osaka, Japan, December 11-16, 2016.
- The 15th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, NAACL-HLT, San Diego, California, June 12-16, 2016.

- Computing Community Consortium (CCC) Symposium on Computing Research: Addressing National Priorities and Societal Needs, Washington,DC, May 9-10th, 2016. Invited poster presenter.
- Thirtieth AAAI Conference on Artificial Intelligence(AAAI-16), workshops, February 12-14, Phoenix, Arizona, USA
- AAAI Fall Symposium on Embedded Machine Learning, Arlington, Virginia, Nov.12-14, 2015.
- Rising Stars in EECS: An Academic Career Workshop for Women, MIT Department of EECS, Nov. 9-10, 2015.
- International Joint Conference on Artificial Intelligence, IJCAI-2015,July 25-31, Buenos Aires, Argentina.
- The 2015 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HTL) Denver, Colorado, May 31-June 5, 2015.
- International Workshop on Semantic Evaluation 2015, 5th June, collocated with NAACL-HTL.
- DARPA Probabilistic Programming for Advancing Machine Learning (PPAML) PI meeting, January 21-22, 2015, Crowne Plaza, Tampa, FL.
- The 52nd Annual Meeting of the Association for Computational Linguistics ACL 2014 June, 22-26, Baltimore.
- The 18th Conference on Computational Natural Language Learning (CoNLL-2014), June, 26-27, Baltimore.
- The Twenty-seventh Annual Conference on Neural Information Processing Systems (NIPS), December 05-10, 2013, Lake Tahoe.

Software

Github <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>

Languages

Persian **Mother tongue**
 Kurdish **Mother tongue**
 English **Advanced**
 Dutch **Intermediate**
 Arabic **Intermediate**