

JESSE THOMASON

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EDUCATION

- PhD Computer Science, University of Texas at Austin 2013-18
- BS Computer Science; Mathematics, University of Pittsburgh 2009-13

RESEARCH INTERESTS

Natural Language Processing, Semantic Parsing, Language Grounding for Robotics

PUBLICATIONS

Refereed Conference and Journal Papers

- Saeid Amiri, Suhua Wei, Shiqi Zhang, Jivko Sinapov, **Jesse Thomason**, and Peter Stone. Multi-modal Predicate Identification using Dynamically Learned Robot Controllers. *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI-18)*.
- **Jesse Thomason**, Jivko Sinapov, Raymond Mooney, and Peter Stone. Guiding Exploratory Behaviors for Multi-Modal Grounding of Linguistic Descriptions. *Proceedings of the 32nd Conference on Artificial Intelligence (AAAI-18)*.
- Wesley Tansey, **Jesse Thomason**, and James G Scott. Maximum-Variance Total Variation Denoising for Interpretable Spatial Smoothing. *Proceedings of the 32nd Conference on Artificial Intelligence (AAAI-18)*.
- **Jesse Thomason**, Aishwarya Padmakumar, Jivko Sinapov, Justin Hart, Peter Stone, and Raymond J. Mooney. Opportunistic Active Learning for Grounding Natural Language Descriptions. *Proceedings of the 1st Annual Conference on Robot Learning (CoRL-17)*.
- Rodolfo Corona, **Jesse Thomason**, and Raymond J. Mooney. Improving Black-box Speech Recognition using Semantic Parsing. *Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP-17)*.
- **Jesse Thomason** and Raymond J. Mooney. Multi-Modal Word Synset Induction. *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI-17)*.
- Aishwarya Padmakumar, **Jesse Thomason**, and Raymond J. Mooney. Integrated Learning of Dialog Strategies and Semantic Parsing. *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL-17)*.
- Piyush Khandelwal, Shiqi Zhang, Jivko Sinapov, Matteo Leonetti, **Jesse Thomason**, Fangkai Yang, Ilaria Gori, Maxwell Svetlik, Priyanka Khante, Vladimir Lifschitz, J. K. Aggarwal, Raymond Mooney, and Peter Stone. BWIBots: A platform for bridging the gap between AI and human-robot interaction research. *Sage: The International Journal of Robotics Research (IJRR-17)*.
- **Jesse Thomason**, Jivko Sinapov, Maxwell Svetlik, Peter Stone, and Raymond Mooney. Learning Multi-Modal Grounded Linguistic Semantics by Playing "I Spy". *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI-16)*.
- **Jesse Thomason**, Shiqi Zhang, Raymond Mooney, and Peter Stone. Learning to Interpret Natural Language Commands through Human-Robot Dialog. *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI-15)*.

- **Jesse Thomason**, Subhashini Venugopalan, and Raymond Mooney. Integrating Language and Vision to Generate Natural Language Descriptions of Videos in the Wild. *Proceedings of the 25th International Conference on Computational Linguistics (COLING-14)*.
- **Jesse Thomason**, Huy Nguyen, and Diane Litman. Prosodic Entrainment and Tutoring Dialogue Success. *Proceedings of the 16th International Conference on Artificial Intelligence in Education (AIED-13)*.
- **Jesse Thomason** and Diane Litman. Differences in User Responses to a Wizard-of-Oz versus Automated System. *Proceedings of the 2013 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-13)*.
- **Jesse Thomason** and Jingtao Wang. Exploring Multi-dimensional Data on Mobile Devices with Single Hand Motion and Orientation Gestures. *Proceedings of the 14th international conference on Human-computer interaction with mobile devices and services companion (MobileHCI-12)*.
- **Jesse Thomason**, Kenji Yoshigoe, R.B. Lenin, James M. Bridges, and Srinu Ramaswamy. Differentiated service strategies for ad-hoc wireless sensor networks in harsh communication environments. *Springer: Wireless Networks (WN-12) 18(5)*.

Workshops, Thesis work, etc.

- Justin Hart, Harel Yedidsion, Yuqian Jiang, Nick Walker, Rishi Shah, **Jesse Thomason**, Aishwarya Padmakumar, Rolando Fernandez, Jivko Sinapov, Raymond Mooney, and Peter Stone. Interaction and Autonomy in RoboCup@Home and Building-Wide Intelligence. *AI-HRI AAAI Fall Symposium Series (AAAI-FSS)*.
- **Jesse Thomason**, Aishwarya Padmakumar, Jivko Sinapov, Nick Walker, Yuqian Jiang, Harel Yedidsion, Justin Hart, Peter Stone, and Raymond J. Mooney. Jointly Improving Parsing and Perception for Natural Language Commands through Human-Robot Dialog. *Late-breaking Track at the SIGDIAL Special Session on Physically Situated Dialogue (RoboDIAL-18)*.
- **Jesse Thomason**, Aishwarya Padmakumar, Jivko Sinapov, Nick Walker, Yuqian Jiang, Harel Yedidsion, Justin Hart, Peter Stone, and Raymond J. Mooney. Jointly Improving Parsing and Perception for Natural Language Commands through Human-Robot Dialog. *Proceedings of the RSS Workshop on Models and Representations for Natural Human-Robot Communication (MRHRC-18)*.
- **Jesse Thomason**. Continually Improving Grounded Natural Language Understanding through Human-Robot Dialog. *Department of Computer Science, The University of Texas at Austin*.
- Wesley Tansey, **Jesse Thomason**, and James G. Scott. Interpretable Low-Dimensional Regression via Data-Adaptive Smoothing. *Proceedings of the ICML Workshop on Human Interpretability in Machine Learning (WHI-17)*.
- **Jesse Thomason**, Jivko Sinapov, and Raymond J. Mooney. Guiding Interaction Behaviors for Multi-modal Grounded Language Learning. *Proceedings of the First Workshop on Language Grounding for Robotics (RoboNLP-17)*.
- **Jesse Thomason**. Continuously Improving Natural Language Understanding for Robotic Systems through Semantic Parsing, Dialog, and Multi-modal Perception. *Doctoral Dissertation Proposal*.

FELLOWSHIPS and AWARDS

- National Science Foundation Graduate Research Fellowship 2015
- Microelectronics and Computer Development (MCD) Fellowship, University of Texas at Austin 2013
- Computer Science Outstanding Undergraduate Student Award, University of Pittsburgh 2013

- Honors College Chancellor's Scholarship, University of Pittsburgh 2009

RESEARCH and INDUSTRY POSITIONS

University of Washington, Research Associate (Postdoc) 2018-19

- Working in Luke Zettlemoyer's lab.

Google, PhD Intern 2016

- Worked on attaching semantic roles to chunked query constituents.
- Proposed and demonstrated a factor graph method that incorporated pre-processing and frame-based knowledge to label chunks with roles.

Einhorn Media Group 2011-13

- Maintained and updated multiple commercial software packages distributed by the company.
- Assisted in the development of new software and web tools both for distribution and for local use.

PROFESSIONAL ACTIVITIES

Conference Organization

- Co-Chair: Combined Workshop on Spatial Language Understanding (SpLU) and Grounded Communication for Robotics (RoboNLP) at NAACL-19
- Co-Chair: Special Session on Physically Situated Dialog (RoboDIAL) at SIGDIAL-18
- Organizer: Workshop on Communicating with Robots Naturally (CWRN) at RSS-18
- Programme Committee: Workshop on Language Grounding for Robotics (RoboNLP) at ACL-17

University Organization

- Organizer: UW RoboNLP Reading Group (Fall 2018)
- Organizer: UW NLP Applications Reading Group (Fall 2018)
- Organizer: UT Connecting Language Acquisition with Machine Perception Reading Group (2014-18)

Conference Reviewer

- North American Chapter of the Association for Computational Linguistics (NAACL) 2019, 2016
- Autonomous Agents and Multi-Agent Systems (AAMAS) 2019, 2016, 2015
- International Conference on Machine Learning (ICML) 2019
- Human-Robot Interaction (HRI) 2018
- Conference on Robot Learning (CoRL) 2018
- Empirical Methods in Natural Language Processing (EMNLP) 2018, 2017
- International Conference on Intelligent Robots and Systems (IROS) 2018
- International Conference on Computational Linguistics (COLING) 2018
- Robotics: Science and Systems (RSS) 2018, 2017
- Association for Computational Linguistics (ACL) 2018
- Advances in Neural Information Processing Systems (NIPS) 2017
- International Joint Conference on Artificial Intelligence (IJCAI) 2017

Journal Reviewer

- Computational Linguistics (CL) 2018
- ACM Transactions on Interactive Intelligent Systems (TiiS) 2018
- Springer Autonomous Agents and Multi-Agent Systems (AGNT) 2018
- Springer Automomous Robots (AURO) 2018