

Natalie Parde

University of North Texas
Department of Computer Science and Engineering
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Education **Ph.D., Computer Science and Engineering**

University of North Texas, 2018. 4.0/4.0.

M.S., Computer Science

University of North Texas, 2016. 4.0/4.0.

B.S., Computer Science

University of North Texas, 2013. *Summa Cum Laude*.

Research **Human Intelligence and Language Technologies Laboratory**

Department of Computer Science and Engineering, University of North Texas

Research Assistant, June 2013 – May 2015

Research Fellow, June 2015 – Present

Human Movement Performance Laboratory

Department of Physical Therapy, University of North Texas Health Science Center

Programmer, June 2018 – Present

Software and Knowledge Engineering Laboratory

Institute of Informatics and Telecommunications, N.C.S.R. Demokritos, Greece

Visiting Researcher, July 2014

Reconfigurable Computing Laboratory

Department of Electrical Engineering, University of North Texas

Research Assistant, August 2012 – May 2013

Summer Undergraduate Program in Engineering Research (SUPER)

College of Engineering, University of North Texas

Research Assistant, June 2012 – August 2012

Research **National Science Foundation Graduate Research Fellowship** Grants

National Science Foundation, 2014

Awards **Outstanding Ph.D. Student**, Department of Computer Science and Engineering, University of North Texas, 2018

Dr. Hermann Zemlicka Award for Most Visionary Paper, Gmunden Retreat on NeuroIS, 2017
Golden Eagle Award, University of North Texas, 2016
First Place Project, International Research-centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis, 2014
People's Choice Project, International Research-centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis, 2014
Honors Scholar Award, UNT Honors College, 2013

Travel Grants

Connections in Smart Health Workshop Travel Award, National Science Foundation, 2018
SemBEaR Student Travel Grant, NAACL Workshop on Computational Semantics Beyond Events and Roles/National Science Foundation, 2018
AAAI Doctoral Consortium Travel Grant, Association for the Advancement of Artificial Intelligence, 2018
Grace Hopper Scholarship, Google, 2017
EMNLP Student Scholarship, Special Interest Group on Linguistic Data and Corpus-based Approaches to NLP, 2017
Toulouse Graduate School Travel Grant, University of North Texas, 2018, 2017
College of Engineering Travel Grant, University of North Texas, 2018, 2017, 2014
Departmental Travel Award, Department of Computer Science and Engineering, University of North Texas, 2018, 2016, 2015, 2013
IJCAI Doctoral Consortium Travel Grant, International Joint Conference on Artificial Intelligence/National Science Foundation, 2015
CRA-W Workshop and Travel Scholarship, CRA Committee on the Status of Women in Computing, 2016, 2015, 2014

Scholarships

Graduate Assistantship Tuition Scholarship, University of North Texas, 2013
Academic Achievement Scholarship, University of North Texas, 2013
Engineering Ambassador Scholarship, College of Engineering, University of North Texas, 2012
C.J. Davidson Honors Scholarship, Honors College, University of North Texas, 2011
Achievement Scholarship, University of North Texas, 2009
Board of Regents' Excellence Scholarship, University of North Texas, 2009-2013

Publications

N. Parde and R. D. Nielsen. Reading with Robots: Promoting Cognitive Exercise in Elderly Populations through Embodied Conversational Dialogue. To appear in the *Proceedings of the 2018 Connections in Smart Health Workshop*. Arlington, Virginia, September 24-26, 2018.

N. Parde and R. D. Nielsen. Detecting Sarcasm is Extremely Easy ;-). In *Proceedings of the NAACL 2018 Workshop on Computational Semantics Beyond Events and Roles (SemBEaR 2018)*. New Orleans, Louisiana, June 5, 2018.

N. Parde and R. D. Nielsen. A Corpus of Metaphor Novelty Scores for Syntactically-Related Word Pairs. In *Proceedings of the 11th International Conference on Language Resources and Evaluation (LREC 2018)*. Miyazaki, Japan, May 7-12, 2018.

N. Parde and R. D. Nielsen. Exploring the Terrain of Metaphor Novelty: A Regression-based Approach for Automatically Scoring Metaphors. In *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18)*. New Orleans, Louisiana, February 2-7, 2018.

N. Parde. Reading with Robots: Towards a Human-Robot Book Discussion System for Elderly Adults. In *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18) Doctoral Consortium*. New Orleans, Louisiana, February 2-7, 2018.

N. Parde and R. D. Nielsen. Finding Patterns in Noisy Crowds: Regression-based Annotation Aggregation for Crowdsourced Data. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2017)*. Copenhagen, Denmark, September 7-11, 2017.

N. Salma, B. Mai, K. Namuduri, R. Mamun, Y. Hashem, H. Takabi, N. Parde, and R. Nielsen. Using EEG Signal to Analyze IS Decision Making Cognitive Processes. In *Information Systems and Neuroscience, Lecture Notes in Information Systems and Organisation*.

M. Narouei, H. Khanpour, H. Takabi, R. Nielsen and N. Parde. Towards a Top-down Policy Engineering Framework for Attribute-based Access Control. In *Proceedings of the 22nd ACM Symposium on Access Control Models and Technologies*. Indianapolis, Indiana, June 21-23, 2017.

N. Parde and R. D. Nielsen. #SarcasmDetection is soooo general! Towards a Domain-Independent Approach for Detecting Sarcasm. In *Proceedings of the 30th International FLAIRS Conference*. Marco Island, Florida, May 22-24, 2017.

N. Parde, A. Hair, M. Papakostas, K. Tsiakas, M. Dagioglou, V. Karkaletsis, and R. D. Nielsen. Grounding the Meaning of Words through Vision and Interactive Gameplay. In *Proceedings of the 2015 International Joint Conference on Artificial Intelligence (IJCAI 2015)*, Buenos Aires, Argentina, July 25-31, 2015.

M. Papakostas, K. Tsiakas, N. Parde, V. Karkaletsis, and F. Makedon. An Interactive Framework for Learning User-Object Associations through Human-Robot Interaction. In *Proceedings of the 8th International Conference on Pervasive Technologies Related to Assistive Environments*, Corfu, Greece, July 1-3, 2015.

N. Parde, M. Papakostas, K. Tsiakas, and R. D. Nielsen. "Is It Rectangular?" Using I Spy as an Interactive, Game-Based Approach to Multimodal Robot Learning. In *Proceedings of the AAAI-15 Conference on Artificial Intelligence Student Program*, Austin, Texas, January 25-30, 2015.

N. Parde, M. Papakostas, K. Tsiakas, M. Dagioglou, V. Karkaletsis, and R. D. Nielsen. I Spy: An Interactive Game-Based Approach to Multimodal Robot Learning. In *Proceedings of the AAAI-15 Workshop on Knowledge, Skill, and Behavior Transfer in Autonomous Robots*, Austin, Texas, January 25, 2015.

N. Parde and R. D. Nielsen. Design Challenges and Recommendations for Multi-Agent Learning Systems Featuring Teachable Agents. In *Proceedings of the 2nd Annual GIFT Users Symposium (GIFTSym2)*. Pittsburgh, Pennsylvania, June 12-13, 2014

G. Mehta, K. K. Patel, N. Parde, and N.S. Pollard. "Data-driven mapping using local patterns." *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* 32.11 (2013): 1668-1681.

G. Mehta, C. Crawford, X. Luo, N. Parde, K. Patel, B. Rodgers, A. Sistla, A. Yadav, and M. Reisner. (2013). UNTANGLED – A game environment for discovery of creative mapping strategies. In *ACM Transactions on Reconfigurable Technology and Systems*, Vol. 6, No.3

G. Mehta, X. Luo, N. Parde, K. Patel, B. Rodgers, and A. K. Sistla. UNTANGLED - An interactive mapping game for engineering education. In *Proceedings of 2013 IEEE International Conference on Microelectronic Systems Education (MSE)*, Austin, Texas, 2013.

A. Sistla, N. Parde, K. Patel, and G. Mehta. Cross-architectural study of custom reconfigurable devices using crowdsourcing. In *Proceedings of the 2013 IEEE 27th International Symposium on Parallel and Distributed Processing Workshops and PhD Forum (IPDPSW '13)*, Boston, Massachusetts, May 20-24, 2013.

Additional Talks

N. Parde and R. D. Nielsen. Reading with Robots: Towards an Intelligent Reading Companion that Promotes Cognitive Exercise in Older Adults. Poster at the *2017 Dallas Aging and Cognition Conference*. Dallas, Texas, January 29-30, 2017.

R. D. Nielsen and N. Parde. Perceptive Emotive Spoken-Dialogue Companion Robots. Presentation at the *2016 IEEE MetroCon Conference*. Arlington, Texas, October 26, 2016.

N. Parde and R. D. Nielsen. Getting to the Heart of Metaphors: Dependency-based Detection of Metaphoric Juxtapositions. Poster at the *2016 CRA-Women Graduate Cohort Workshop*. San Diego, California, April 15-16, 2016.

N. Parde and R. D. Nielsen. An Exploration in Teaching Robots through “I Spy” Gameplay. Poster at the *2015 CRA-Women Graduate Cohort Workshop*. San Francisco, California, April 10-11, 2015.

N. Parde and R. D. Nielsen. Improving Cognition in the Elderly via Dialogue-Based Games with Teachable Robot Agents. Poster at the *2014 CRA-Women Graduate Cohort Workshop*. Santa Clara, California, April 11-12, 2014.

Teaching

Guest Lecturer, UNT (Frisco) CSCE 5300
March 2018: Introduction to Big Data and Data Science

Guest Lecturer, UNT CSCE 4310/5210
May 2018: Grounded Language Learning
February 2018: Figurative Language Processing + AAAI 2018 Highlights
March 2017: Natural Language Processing

Guest Lecturer, UNT CSCE 1010
Nov. 2015, April 2015, Nov. 2014, April 2014: Introduction to Robotics with NAO

Service

Activity Leader, STEM Academy Middle School Summer Camp
July 2018, July 2017, July 2016

Site Facilitator
North American Computational Linguistics Olympiad
2018, 2017, 2016, 2014

Application Reviewer
NCWIT Aspirations in Computing Award
2017, 2015

Activity Instructor, Design Your World STEM Conference for Girls
November 2017, April 2016, March 2015

Volunteer, EMNLP Conference
September 2017

Student Group Leader, Design Your World STEM Conference for Girls

Panelist, NCWIT Aspirations in Computing Ceremony
February 2016

Volunteer, IJCAI Conference
July 2015

Judge, UNT Showcase of Undergraduate Research in Engineering
September 2013

Affiliations **President**, UNT Women in Computing
Member, Association for Computing Machinery
Member, Association for Computational Linguistics
Member, Association for the Advancement of Artificial Intelligence

Mentoring **Keerat Baweja**, Texas Academy of Mathematics and Science (TAMS) student, 2013-2015
 Adam Hair, University of North Texas (UNT) student, 2014-2015
 Jacob Brunson, TAMS student, 2015-2016
 Sara Adams, TAMS student, 2015-2016
 Noelle Davis, TAMS student, 2015-2016
 Zhaochen Gu, UNT student, 2015-2016
 Shelby Hobohm, TAMS student, 2016-2017
 Leanne Joseph, TAMS student, 2016-2017
 Yuri Castro, TAMS student, 2016
 Soujanya Geddam, TAMS student, 2016-2017
 Zaine Khoja, TAMS student, 2016
 Ryan Peterson, TAMS student, 2017-Present
 Huram-Abi Yotchoum Nzia, TAMS student, 2017-Present
 John Long, TAMS student, 2018-Present
 Skylar Werner, UNT student, 2018-Present
 Philip Zeng, TAMS student, 2018-Present
 Henry Nguyen, TAMS student, 2018-Present