

# Natalie Parde

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## Education

2018 | **Ph.D., Computer Science and Engineering**

University of North Texas (4.0/4.0)

2016 | **M.S., Computer Science**

University of North Texas (4.0/4.0)

2013 | **B.S., Computer Science**

University of North Texas (Summa Cum Laude)

— **Additional Training**

Overview of Online Instruction, Illinois Online Network (ION) Professional eLearning Program, 2020

New Computing Faculty Workshop, Computing Research Association, 2018

Graduate Student Teaching Excellence Program, University of North Texas, 2016

## Academic Appointments

2018 - Ongoing | **University of Illinois at Chicago**

Chicago, Illinois

Assistant Professor, Department of Computer Science

Co-Director, Natural Language Processing Laboratory

2018 | **University of North Texas Health Science Center**

Fort Worth, Texas

Programmer, Human Movement Performance Laboratory

2014 | **National Centre of Scientific Research Demokritos**

Athens, Greece

Visiting Researcher, Software and Knowledge Engineering Laboratory

2012 - 2018 | **University of North Texas**

Denton, Texas

Research Fellow, Human Intelligence and Language Technologies Laboratory, 2015-2018

Research Assistant, Human Intelligence and Language Technologies Laboratory, 2013-2015

Research Assistant, Reconfigurable Computing Laboratory, 2012-2013

## Research Grants

**SCC-IRG Track 2: Smart and Connected Family Engagement for Equitable Early Intervention Service Design**

National Science Foundation | \$1,171,723 | October 2021 – September 2024

Investigators: **Natalie Parde** (PI, UIC Computer Science), Mary Khetani (Co-PI, UIC Occupational Therapy), and Jodi Dooling-Litfin (Co-PI, Rocky Mountain Human Services)

## **Social Cognition and Suicide in Psychotic Disorders**

*National Institutes of Health/National Institute of Mental Health | \$160,142 | October 2021 – January 2023*

Investigators: Colin Depp (PI, UCSD Psychiatry), Amy Pinkham (Site PI, UTD Psychology), Philip Harvey (Site PI, UMiami Psychiatry) and **Natalie Parde** (Site PI, UIC Computer Science)

## **Effects of an Intelligent Virtual Assistant in a Noisy Environment on Office Workers' Physical and Cognitive Loads**

*Office Ergonomics Research Committee | \$25,407 | January 2021 – December 2021*

Investigators: Heejin Jeong (PI, UIC Mechanical and Industrial Engineering), **Natalie Parde** (Co-I, UIC Computer Science), and Myunghee Kim (Co-I, UIC Mechanical and Industrial Engineering)

## **CREATE WISDOM: Addressing Wicked Problems in Healthcare through Informatics, Engineering, Data Science and Medicine**

*UI Discovery Partners Institute | \$125,000 | August 2020 – July 2021*

Investigators: Karl Kochendorfer (PI, UI Health); Ravishankar Iyer (Co-PI, UIUC); Andrew Trotter, Martha Daviglus, Christian Ascoli, Scott Borgetti, Stephen Brown, Bill Galanter, Olga Garcia-Bedoya, Bh Brandon Harris, Min Joo, Martha Menchaca, Richard Novak, and Tushar Patel (Co-Is, UI Health); Narendra Ahuja, Anu Aggarwal, Masooda Bashir, Roy Campbell, David Forsyth, Sanmi Koyejo, and ChengXiang Zhai (Co-Is, UIUC); Andy Boyd, Houshang Darabi, and **Natalie Parde** (Co-Is, UIC); Bala Hota and Casey Frankenberger (Co-Is, Rush University Medical Center); Liewei Wang (Co-I, Mayo Clinic); Justin B. Starren (Co-I, Northwestern University); Paul Arnold (Co-I, Carle Foundation Hospital); Ayis Pyrros (Co-I, DuPage Medical Group); Sarah de Ramirez (Co-I, OSF Healthcare)

## **Artificial Intelligence Modeling for COVID-19 Disease (AIMCOVID)**

*UIC Center for Clinical and Translational Science | \$30,000 | May 2020 – April 2021*

Investigators: Andrew Trotter (PI, UIC Clinical Medicine), Christian Ascoli (Co-I, UIC Medicine), Scott Borgetti (Co-I, UIC Clinical Medicine), Andrew Boyd (Co-I, UIC Biomedical and Health Information Sciences), Houshang Darabi (Co-I, UIC Mechanical and Industrial Engineering), William Galanter (Co-I, UIC Medicine), Bh Brandon Harris (Co-I, UIC Family Medicine), Ravishankar Iyer (Co-I, UIUC Electrical and Computer Engineering), Min Joo (Co-I, UIC Medicine), Karl Kochendorfer (Co-I, UIC Clinical Family Medicine), Martha Menchaca (Co-I, UIC Radiology), Richard Novak (Co-I, UIC Medicine), **Natalie Parde** (Co-I, UIC Computer Science)

## **Alzheimer's Disease Research Center Pilot Grant**

*University of California, San Diego | \$60,000 | March 2020 – February 2022*

Investigators: Erin Sundermann (PI, UCSD Psychiatry), Raeanne Moore (Co-I, UCSD Psychiatry), Tamar Gollan (Co-I, UCSD Psychiatry), **Natalie Parde** (Consultant, UIC Computer Science), Alex Leow (Consultant, UIC Psychiatry)

## **Google Cloud Platform Research Credits Grant**

*Google | \$5000 | January 2019 – December 2019*

Investigators: **Natalie Parde** (PI, UIC Computer Science)

## **National Science Foundation Graduate Research Fellowship**

*National Science Foundation | \$132,000 | April 2014 – August 2018*

Investigators: **Natalie Parde** (PI, UNT Computer Science and Engineering)

## **Honors**

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**College of Engineering (COE) Teaching Award**, University of Illinois at Chicago, 2021

**Outstanding Reviewer**, Conference on Empirical Methods in Natural Language Processing, 2020

**Outstanding Reviewer**, Association for Computational Linguistics, 2020

**Outstanding Reviewer**, North American Chapter of the Association for Computational Linguistics, 2019

**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

## Additional Competitive Awards

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### 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 and 2017  
**College of Engineering Travel Grant**, University of North Texas, 2018, 2017, and 2014  
**Departmental Travel Award**, Department of Computer Science and Engineering, University of North Texas, 2018, 2016, 2015, and 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, and 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

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Note: The \* following an individual's name indicates that they are a member of my research team.

### Journal

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| 2022 | 4. | Kaelin, V. C., Valizadeh, M.*, Salgado, Z., Sim, J. G., Anaby, D., Boyd, A. D., <b>Parde, N.</b> & Khetani, M. A. Capturing and Operationalizing Participation in Pediatric Re/Habilitation Research Using Artificial Intelligence: A Scoping Review. <i>Frontiers in Rehabilitation Sciences</i> <b>3</b> (2022). |
| 2021 | 3. | Kaelin, V. C., Valizadeh, M.*, Salgado, Z., <b>Parde, N.</b> & Khetani, M. A. Artificial Intelligence in Rehabilitation Targeting the Participation of Children and Youth With Disabilities: Scoping Review. <i>J Med Internet Res</i> <b>23</b> , e25745 (Nov. 2021).                                             |
| 2013 | 2. | Mehta, G., Crawford, C., Luo, X., <b>Parde, N.</b> , Patel, K., Rodgers, B., Sistla, A. K., Yadav, A. & Reisner, M. UNTANGLED: A Game Environment for Discovery of Creative Mapping Strategies. <i>ACM Transactions on Reconfigurable Technology and Systems</i> <b>6</b> (Oct. 2013).                             |
|      | 1. | Mehta, G., Patel, K. K., <b>Parde, N.</b> & Pollard, N. S. Data-Driven Mapping Using Local Patterns. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> <b>32</b> , 1668–1681 (2013).                                                                                            |

## Conference

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| 2022 | <p>17. Aich, A.* , Bhattacharya, S.* &amp; <b>Parde, N.</b> <i>Demystifying Neural Fake News via Linguistic Feature-Based Interpretation</i> in <i>Proceedings of the 29th International Conference on Computational Linguistics</i> (International Committee on Computational Linguistics, Gyeongju, Republic of Korea, Oct. 2022), 6586–6599.</p> <p>16. Aich, A.* &amp; <b>Parde, N.</b> <i>Telling a Lie: Analyzing the Language of Information and Misinformation during Global Health Events</i> in <i>Proceedings of the Language Resources and Evaluation Conference</i> (European Language Resources Association, Marseille, France, June 2022), 4135–4141.</p> <p>15. Farzana, S.* &amp; <b>Parde, N.</b> <i>Are Interaction Patterns Helpful for Task-Agnostic Dementia Detection? An Empirical Exploration</i> in <i>Proceedings of the 23rd Annual Meeting of the Special Interest Group on Discourse and Dialogue</i> (Association for Computational Linguistics, Edinburgh, UK, Sept. 2022), 172–182.</p> <p>14. Herrera, M.* , Aich, A.* &amp; <b>Parde, N.</b> <i>TweetTaglish: A Dataset for Investigating Tagalog-English Code-Switching</i> in <i>Proceedings of the Language Resources and Evaluation Conference</i> (European Language Resources Association, Marseille, France, June 2022), 2090–2097.</p> <p>13. Valizadeh, M.* &amp; <b>Parde, N.</b> <i>The AI Doctor Is In: A Survey of Task-Oriented Dialogue Systems for Healthcare Applications</i> in <i>Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)</i> (Association for Computational Linguistics, Dublin, Ireland, May 2022), 6638–6660.</p> |
| 2021 | <p>12. Valizadeh, M.* , Ranjbar-Noiey, P.* , Caragea, C. &amp; <b>Parde, N.</b> <i>Identifying Medical Self-Disclosure in Online Communities</i> in <i>Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies</i> (Association for Computational Linguistics, Online, June 2021), 4398–4408.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2020 | <p>11. Farzana, S.* &amp; <b>Parde, N.</b> <i>Exploring MMSE Score Prediction Using Verbal and Non-Verbal Cues</i> in <i>Proceedings of Interspeech 2020</i> (International Speech Communication Association, Online, Oct. 2020), 2207–2211.</p> <p>10. Farzana, S.* , Valizadeh, M.* &amp; <b>Parde, N.</b> <i>Modeling Dialogue in Conversational Cognitive Health Screening Interviews English</i>. in <i>Proceedings of the 12th Language Resources and Evaluation Conference</i> (European Language Resources Association, Marseille, France, May 2020), 1167–1177.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2019 | <p>9. <b>Parde, N.</b> &amp; Nielsen, R. D. <i>AI Meets Austen: Towards Human-Robot Discussions of Literary Metaphor in Artificial Intelligence in Education</i> (eds Isotani, S., Millán, E., Ogan, A., Hastings, P., McLaren, B. &amp; Luckin, R.) (Springer International Publishing, Cham, June 2019), 213–219.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2018 | <p>8. <b>Parde, N.</b> &amp; Nielsen, R. <i>A Corpus of Metaphor Novelty Scores for Syntactically-Related Word Pairs</i> in <i>Proceedings of the Eleventh International Conference on Language Resources and Evaluation (LREC 2018)</i> (European Language Resources Association (ELRA), Miyazaki, Japan, May 2018).</p> <p>7. <b>Parde, N.</b> &amp; Nielsen, R. <i>Automatically Generating Questions about Novel Metaphors in Literature</i> in <i>Proceedings of the 11th International Conference on Natural Language Generation</i> (Association for Computational Linguistics, Tilburg University, The Netherlands, Nov. 2018), 264–273.</p> <p>6. <b>Parde, N.</b> &amp; Nielsen, R. <i>Exploring the Terrain of Metaphor Novelty: A Regression-Based Approach for Automatically Scoring Metaphors</i> in <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> <b>32</b> (Association for the Advancement of Artificial Intelligence, New Orleans, Louisiana, Apr. 2018).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2017 | <p>5. <b>Parde, N.</b> &amp; Nielsen, R. <i>#SarcasmDetection Is Soooo General! Towards a Domain-Independent Approach for Detecting Sarcasm</i> in <i>Florida Artificial Intelligence Research Society Conference</i> (May 2017).</p> <p>4. <b>Parde, N.</b> &amp; Nielsen, R. <i>Finding Patterns in Noisy Crowds: Regression-based Annotation Aggregation for Crowdsourced Data</i> in <i>Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing</i> (Association for Computational Linguistics, Copenhagen, Denmark, Sept. 2017), 1907–1912.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

- 2015 | 3. Papakostas, M., Tsiakas, K., **Parde, N.**, Karkaletsis, V. & Makedon, F. *An Interactive Framework for Learning User-Object Associations through Human-Robot Interaction in Proceedings of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments* (Association for Computing Machinery, Corfu, Greece, July 2015).
2. **Parde, N.**, Hair, A., Papakostas, M., Tsiakas, K., Dagioglou, M., Karkaletsis, V. & Nielsen, R. D. *Grounding the Meaning of Words through Vision and Interactive Gameplay in Proceedings of the 24th International Conference on Artificial Intelligence* (AAAI Press, Buenos Aires, Argentina, July 2015), 1895–1901.
- 2013 | 1. Mehta, G., Luo, X., **Parde, N.**, Patel, K., Rodgers, B. & Sistla, A. K. *UNTANGLED - An interactive mapping game for engineering education in 2013 IEEE International Conference on Microelectronic Systems Education (MSE)* (June 2013), 40–43.

## Workshop or Symposium

- 2022 | 19. Aich, A.\* & **Parde, N.** *Are You Really Okay? A Transfer Learning-based Approach for Identification of Underlying Mental Illnesses in Proceedings of the Eighth Workshop on Computational Linguistics and Clinical Psychology* (Association for Computational Linguistics, Seattle, USA, July 2022), 89–104.
18. Arvan, M.\*, Pina, L. & **Parde, N.** *Reproducibility of Exploring Neural Text Simplification Models: A Review in Proceedings of the 15th International Natural Language Generation Conference* (Association for Computational Linguistics, Waterville, Maine, July 2022).
17. Farinango Cuervo, C.\* & **Parde, N.** *Exploring Contrastive Learning for Multimodal Detection of Misogynistic Memes in Proceedings of the 16th International Workshop on Semantic Evaluation (SemEval-2022)* (Association for Computational Linguistics, Seattle, United States, July 2022), 785–792.
16. Farzana, S.\*, Deshpande, A.\* & **Parde, N.** *How You Say It Matters: Measuring the Impact of Verbal Disfluency Tags on Automated Dementia Detection in Proceedings of the Workshop on Biomedical Language Processing (BioNLP 2022)* (Association for Computational Linguistics, Dublin, Ireland, May 2022).
15. Stoppa, E., Di Donato, G. W., **Parde, N.** & Santambrogio, M. D. *Computer-Aided Dementia Detection: How Informative Are Your Features? in 2022 IEEE 7th Forum on Research and Technologies for Society and Industry Innovation (RTSI)* (2022), 55–61.
- 2021 | 14. Gordon, C.\* & **Parde, N.** *Latent Neural Differential Equations for Video Generation in NeurIPS 2020 Workshop on Pre-registration in Machine Learning* (eds Bertinetto, L., Henriques, J. F., Albanie, S., Paganini, M. & Varol, G.) 148 (Proceedings of Machine Learning Research, 2021), 73–86.
13. Hossu, P.\* & **Parde, N.** *Using Deep Learning to Correlate Reddit Posts with Economic Time Series During the COVID-19 Pandemic in Proceedings of the Third Workshop on Financial Technology and Natural Language Processing* (Association for Computational Linguistics, Online, Aug. 2021), 8–14.
- 2020 | 12. Hossu, P.\* & **Parde, N.** *UIC-NLP at SemEval-2020 Task 10: Exploring an Alternate Perspective on Evaluation in Proceedings of the Fourteenth Workshop on Semantic Evaluation* (International Committee for Computational Linguistics, Barcelona (online), Dec. 2020), 1704–1709.
- 2019 | 11. Di Palo, F.\* & **Parde, N.** *Enriching Neural Models with Targeted Features for Dementia Detection in Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics: Student Research Workshop* (Association for Computational Linguistics, Florence, Italy, July 2019), 302–308.
10. Modi, Y.\* & **Parde, N.** *The Steep Road to Happily Ever after: an Analysis of Current Visual Storytelling Models in Proceedings of the Second Workshop on Shortcomings in Vision and Language* (Association for Computational Linguistics, Minneapolis, Minnesota, June 2019), 47–57.
9. **Parde, N.** & Nielsen, R. D. *User Perceptions of a Conversational Robot Interface in Proceedings of the CHI 2019 Workshop on Mapping Theoretical and Methodological Perspectives for Understanding Speech Interface Interactions (SpeechCHI 2019)* (Glasgow, United Kingdom, May 2019).

- 2018 8. **Parde, N.** *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 2018) Doctoral Consortium* (New Orleans, Louisiana, Feb. 2018).
7. **Parde, N.** & Nielsen, R. *Detecting Sarcasm is Extremely Easy ;-)* in *Proceedings of the Workshop on Computational Semantics beyond Events and Roles* (Association for Computational Linguistics, New Orleans, Louisiana, June 2018), 21–26.
6. Salma, N., Mai, B., Namuduri, K., Mamun, R., Hashem, Y., Takabi, H., **Parde, N.** & Nielsen, R. *Using EEG Signal to Analyze IS Decision Making Cognitive Processes* in *Information Systems and Neuroscience* (eds Davis, F. D., Riedl, R., vom Brocke, J., Léger, P.-M. & Randolph, A. B.) (Springer International Publishing, Cham, 2018), 211–218.
- 2017 5. Narouei, M., Khanpour, H., Takabi, H., **Parde, N.** & Nielsen, R. *Towards a Top-down Policy Engineering Framework for Attribute-Based Access Control* in *Proceedings of the 22nd ACM on Symposium on Access Control Models and Technologies* (Association for Computing Machinery, Indianapolis, Indiana, USA, 2017), 103–114.
- 2015 4. **Parde, N.**, Papakostas, M., Tsiakas, K., Dagoglou, M., Karkaletsis, V. & Nielsen, R. D. *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* (Jan. 2015).
3. **Parde, N.**, Papakostas, M., Tsiakas, K. & Nielsen, R. D. *“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, Jan. 2015).
- 2014 2. **Parde, N.** & Nielsen, R. D. *Design challenges and recommendations for multi-agent learning systems featuring teachable agents* in *Proceedings of the 2nd Annual Generalized Intelligent Framework for Tutoring (GIFT) Users Symposium (GIFTSym2)* (2014), 147.
- 2013 1. Sistla, A., **Parde, N.**, Patel, K. & Mehta, G. *Cross-Architectural Study of Custom Reconfigurable Devices Using Crowdsourcing* in *2013 IEEE International Symposium on Parallel Distributed Processing, Workshops and Phd Forum* (2013), 222–230.

## Other Miscellaneous Peer-Reviewed Publications and Presentations

- 2022 8. Farzana, S.\*, Parks, R., Benck, E., **Parde, N.**, Fitzpatrick, D., Bash, S., Haschenburger, M. & Lancaster, H. S. *Automated Scoring of Remotely Administered Irregular Word Spelling Task* Abstract accepted for poster presentation at the 2022 American Speech-Language-Hearing Association Convention. Online, Nov. 2022.
7. Kaelin, V., Valizadeh, M.\*, Salgado, Z., Sim, J., Anaby, D., Boyd, A., **Parde, N.** & Khetani, M. *A Scoping Review of Participation as Operationalized in Pediatric Re/habilitation Research Using Artificial Intelligence* Abstract accepted for oral presentation at the European Academy of Childhood Disability Conference. Online, May 2022.
6. Kaelin, V., Valizadeh, M.\*, Salgado, Z., Sim, J., Anaby, D., Boyd, A., **Parde, N.** & Khetani, M. *Participation as Operationalized in Pediatric Re/habilitation Research Using Artificial Intelligence: A Scoping Review* Abstract accepted for oral presentation at the Australasia Academy of Cerebral Palsy and Developmental Medicine and Alliance of Academies of Childhood Disabilities Conference. Online, Mar. 2022.
- 2021 5. Kaelin, V., Valizadeh, M.\*, **Parde, N.** & Khetani, M. *Artificial intelligence in rehabilitation targeting participation for young persons with disabilities: Gaps and opportunity* Mini-symposium at the American Academy of Cerebral Palsy and Developmental Medicine Annual Meeting. Online, Oct. 2021.
4. Kaelin, V., Valizadeh, M.\*, Salgado, Z., **Parde, N.** & Khetani, M. *Artificial intelligence in participation-focused pediatric rehabilitation: A scoping review* Abstract accepted for oral presentation at the American Congress of Rehabilitation Medicine Annual Conference. Online, Sept. 2021.

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| 2019 | 3. Farzana, S.* & <b>Parde, N.</b> <i>Virtual-Interviewer: A Conversational Agent Designed to Facilitate Cognitive Health Screening in Older Adults</i> in <i>Proceedings of the IEEE-EMBS International Conference on Biomedical and Health Informatics: Extended Abstracts (BHI 2019)</i> (Chicago, Illinois, May 2019). |
|      | 2. Modi, Y.* & <b>Parde, N.</b> <i>Visual Storytelling: Errors and Improvements</i> Abstract accepted for oral presentation at the 2019 Midwest Speech and Language Days (MSLD 2019). Chicago, Illinois, May 2019.                                                                                                         |
| 2017 | 1. <b>Parde, N.</b> & Nielsen, R. D. <i>Reading with Robots: Towards an Intelligent Reading Companion that Promotes Cognitive Exercise in Older Adults</i> Abstract accepted for poster presentation at the 2017 Dallas Aging and Cognition Conference. Dallas, Texas, Jan. 2017.                                          |

### Additional Presentations (Not Peer-Reviewed)

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| 2016 | 3. <b>Parde, N.</b> & Nielsen, R. D. <i>Getting to the Heart of Metaphors: Dependency-based Detection of Metaphoric Juxtapositions</i> Poster at the 2016 CRA-Women Graduate Cohort Workshop. San Diego, California, Apr. 2016. |
| 2015 | 2. <b>Parde, N.</b> & Nielsen, R. D. <i>An Exploration in Teaching Robots through “I Spy” Gameplay</i> Poster at the 2015 CRA-Women Graduate Cohort Workshop. San Francisco, California, Apr. 2015.                             |
| 2014 | 1. <b>Parde, N.</b> & Nielsen, R. D. <i>Improving Cognition in the Elderly via Dialogue-Based Games with Teachable Robot Agents</i> Poster at the 2014 CRA-Women Graduate Cohort Workshop. Santa Clara, California, Apr. 2014.  |

### Invited Talks

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- **N. Parde.** The AI Doctor Is In: Towards Intelligent Automated Support for Healthcare Tasks using Natural Language Processing. Invited keynote at the *NLG4Health Workshop at the 15th International Natural Language Generation Conference*. Waterville, Maine, July 18, 2022.
- **N. Parde.** Inferring Missing EHR Variables from Clinical Notes to Facilitate Improved Understanding of Patient Health Equity. Invited presentation at the *Center for Computational Biotechnology and Genomic Medicine — Workshop on AI and Healthcare*. Virtual, November 11, 2021.
- **N. Parde.** The Doctor (or Chatbot?) Is In: Towards Automated Support for Healthcare Tasks using Natural Language Processing. Invited presentation at the *Tufts University Computer Science Colloquium Series*. Virtual, October 14, 2021.
- **N. Parde.** The Doctor (or Chatbot?) Is In: Towards Automated Support for Healthcare Tasks using Natural Language Processing. Invited presentation at the *DePaul University Computer Science Colloquium Series*. Virtual, October 1, 2021.
- **N. Parde.** The Doctor (or Chatbot?) Is In: Towards Automated Monitoring of Cognitive Health Status and Medical Self-Disclosure. Invited presentation at the *2020 Conference of the Chicago Chapter of the American Statistical Association (CCASA 2020)*. Virtual, November 20, 2020.
- **N. Parde.** Supporting Cognitive Wellness through Spoken Language Analysis. Invited presentation at the *Penn State University Joint CSE/IST Colloquium in Natural Language Processing*. Virtual, October 23, 2020.
- **N. Parde.** And, Action! Towards Leveraging Multimodal Patterns for Storytelling and Content Analysis. Invited keynote at the *2nd International Workshop on AI for Smart TV Content Production, Access and Delivery (AI4TV 2020)*. Virtual, October 12, 2020.
- **N. Parde.** Automatically Assessing Cognitive Health Using Verbal and Non-Verbal Cues. Invited presentation for the *UIC Data Science Lightning Talks* series. Virtual, August 7, 2020.
- **N. Parde.** An Introduction to the Deliciously Simple (#sarcasm) World of Computational Figurative Language Processing. Invited presentation at the *UIC Cognitive Psychology Brown Bag Series*. Chicago, Illinois, April 3, 2019.
- R. D. Nielsen and **N. Parde.** Perceptive Emotive Spoken-Dialogue Companion Robots. Invited presentation at the *2016 IEEE MetroCon Conference*. Arlington, Texas, October 26, 2016.

## Teaching Experience

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### **UIC CS 521: Statistical Natural Language Processing, Spring 2022**

Class Size: 34 | Course Evaluation Responses:<sup>1</sup> 24

*Teaching Effectiveness:*  $4.74 \pm 0.54$  | *Overall Quality:*  $4.7 \pm 0.56$  | *Difficulty:*  $3.13 \pm 0.92$  | *Workload:*  $3.17 \pm 0.83$

### **UIC CS 421: Natural Language Processing, Fall 2021<sup>2</sup>**

Class Size: 48/34 (Undergrad/Grad) | Course Evaluation Responses: 30/28

*Teaching Effectiveness:*  $4.6/4.79 \pm 0.5$  | *Overall Quality:*  $4.4/4.71 \pm 0.97/0.6$  | *Difficulty:*  $3.2/3.18 \pm 1.06/0.61$  | *Workload:*  $3.23/3.46 \pm 1.04/0.64$

### **UIC CS 521: Statistical Natural Language Processing, Spring 2021<sup>2</sup>**

Class Size: 34 | Course Evaluation Responses: 27

*Teaching Effectiveness:*  $4.78 \pm 0.42$  | *Overall Quality:*  $4.7 \pm 0.47$  | *Difficulty:*  $3.41 \pm 1.01$  | *Workload:*  $3.48 \pm 0.94$

### **UIC CS 421: Natural Language Processing, Fall 2020<sup>2</sup>**

Class Size: 47/24 (Undergrad/Grad) | Course Evaluation Responses: 26/20

*Teaching Effectiveness:*  $4.42/4.35 \pm 0.9/1.09$  | *Overall Quality:*  $4.35/4.35 \pm 1.06/1.14$  | *Difficulty:*  $3.46/3.15 \pm 1.07/0.88$  | *Workload:*  $3.77/3.65 \pm 1.03/0.88$

### **UIC CS 521: Statistical Natural Language Processing, Spring 2020<sup>3</sup>**

Class Size: 18 | Course Evaluation Responses: 16

*Teaching Effectiveness:*  $4.81 \pm 0.40$  | *Overall Quality:*  $4.63 \pm 0.72$  | *Difficulty:*  $3.31 \pm 0.79$  | *Workload:*  $3.25 \pm 0.68$

### **UIC CS 421: Natural Language Processing, Fall 2019**

Class Size: 28/25 (Undergrad/Grad) | Course Evaluation Responses: 16/22

*Teaching Effectiveness:*  $4.5/4.36 \pm 0.82/0.85$  | *Overall Quality:*  $4.44/4.64 \pm 0.73/0.58$  | *Difficulty:*  $3.69/3.05 \pm 0.7/1.05$  | *Workload:*  $3.63/3.41 \pm 0.62/1.01$

### **UIC CS 594: Language and Vision, Spring 2019**

Class Size: 19 | Course Evaluation Responses: 17

*Teaching Effectiveness:*  $4.82 \pm 0.39$  | *Overall Quality:*  $4.71 \pm 0.47$  | *Difficulty:*  $3.41 \pm 0.51$  | *Workload:*  $3.53 \pm 0.51$

## Guest Lectures and Educational Workshops

### **UIC Break Through Tech Summer Workshop Series**

*How to Write a Research Paper, July 2021*

### **UIC CS 100: Discovering Computer Science**

*Tea Time: Q&A with Dr. Natalie Parde, May 2020*

### **UNT Graduate Research Grant Assistance Workshop**

*Writing a Successful Proposal — How I Did It, August 2018*

### **UNT (Frisco) CSCE 5300: Introduction to Big Data and Data Science**

*Big Data and Data Science Overview, March 2018*

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<sup>1</sup>Scored using a Likert scale ranging from 1-5. For *Teaching Effectiveness* and *Overall Quality*, 1=Poor and 5=Excellent. For *Difficulty* and *Workload*, 1=Very Easy and 5=Very Hard.

<sup>2</sup>Taught using a remote asynchronous format due to the COVID-19 pandemic.

<sup>3</sup>Switched to a remote synchronous format halfway through the semester due to the COVID-19 pandemic.



## UNT CSCE 4310/5210: Introduction to Artificial Intelligence

*Grounded Language Learning*, May 2018

*Figurative Language Processing + AAAI Highlights*, February 2018

*Natural Language Processing*, March 2017

## UNT CSCE 1010: Discovering Computer Science

*Introduction to Robotics with NAO*, November 2015, April 2015, November 2014, and April 2014

## Additional Teaching Impact

- Educational videos about NLP topics have a combined 40,000+ views on YouTube (Link: <https://www.youtube.com/channel/UCzz9P5QwGkRUesDpCOHMC0A>)
- CS 421 used as a resource for faculty at Eastern Mediterranean University in Northern Cyprus
- CS 521 (Spring 2020) listed as a reference for CC6205 (Natural Language Processing) at Facultad de Ciencias Fisicas y Matemáticas Universidad de Chile (Link: <https://github.com/dccuchile/CC6205>)
- CS 521 (Spring 2020) mentioned in the January 2020 issue of the NLP Newsletter (Link: <http://newsletter.rud.er.io/issues/nlp-progress-restrospectives-and-look-ahead-new-nlp-courses-independent-research-initiatives-interviews-lots-of-resources-217744>; 11.8k+ subscribers)
- CS 594 (Spring 2019) listed as a reference for CMP 722 (Advanced Computer Vision) at Hacettepe University (Link: <https://web.cs.hacettepe.edu.tr/~aykut/classes/spring2019/cmp722/>)
- CS 421 course materials incorporated into the curriculum for the NLP course at Telkom University

## Advising

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### Dissertation Chair

- Ankit Aich (Current), *University of Illinois at Chicago (UIC)*
- Mina Valizadeh (Current), *UIC*
- Mohammad Arvan (Current), *UIC*
  - Recipient, 2020 Provost's Graduate Research Award
- Pardis Ranjbar-Noiey (Current), *UIC*
- Shahla Farzana (Current), *UIC*
- Usman Shahid (Current), *UIC*

### Masters Thesis Chair

- Souvik Bhattacharya (Current), *University of Illinois at Chicago (UIC)*
- Edoardo Stoppa (Current), *UIC*
- Yatri Modi (Successfully Defended 3/3/2020), *UIC*
- Alberto Bellini (Successfully Defended 12/13/2019), *UIC*
- Flavio Di Palo (Successfully Defended 12/12/2019), *UIC*

### Masters Project Chair

- Ashwin Deshpande (Spring 2022), *University of Illinois at Chicago (UIC)*
- Charic Farinango Cuervo (Fall 2021), *UIC*
- Philip Hossu (Spring 2021), *UIC*

### WCP Chair<sup>4</sup>

- Neil Thimmaiah (Fall 2022), *University of Illinois at Chicago (UIC)*

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<sup>4</sup>Written Critique and Presentation (WCP) is the formal name for UIC's Ph.D. qualifier examination. Advisors cannot serve as chairs for their own advisees, and at least one committee member must be from outside the student's primary research area.

- Zahra Rahimi Afzal (Spring 2022), *UIC*
- Jiangshu Du (Spring 2022), *UIC*
- Abari Bhattacharya (Fall 2021), *UIC*
- Tiberiu Sosea (Spring 2021), *UIC*
- Jishnu Ray Chowdhury (Fall 2020), *UIC*
- Seo Yeon Park (Spring 2020), *UIC*
- Mahshid Alsadat Hosseini (Spring 2020), *UIC*
- Hasti Sharifi (Fall 2019), *UIC*
- Yingjie Li (Spring 2019), *UIC*

## **Dissertation Committees**

- Xiaoxu Ding (Preliminary Exam: Forthcoming), *Rehabilitation Sciences, University of British Columbia*
- Ja Eun Yu (Preliminary Exam: Forthcoming), *Computer Science, University of Illinois at Chicago (UIC)*
- Tiberiu Sosea (Preliminary Exam: Spring 2022), *Computer Science, UIC*
- Sepideh Esmailpourcharandabi (Preliminary Exam: Spring 2022), *Computer Science, UIC*
- Sarit Adhikari (Preliminary Exam: Summer 2021), *Computer Science, UIC*
- Natawut Monaikul (Preliminary Exam: Fall 2020), *Computer Science, UIC*
- Vera Kaelin (Successfully Defended 10/25/2022), *Rehabilitation Sciences, UIC*
- Nianzu Ma (Successfully Defended 10/5/2022), *Computer Science, UIC*
- Krista Miller (Successfully Defended 6/27/2022), *Psychology, UIC*
- Abhinav Kumar (Successfully Defended 5/16/2022), *Computer Science, UIC*
- Yingjie Li (Successfully Defended 5/2/2022), *Computer Science, UIC*
- Jianguo Zhang (Successfully Defended 3/8/2022), *Computer Science, UIC*
- Congying Xia (Successfully Defended 12/1/2021), *Computer Science, UIC*
- Ye Liu (Successfully Defended 10/22/2021), *Computer Science, UIC*
- Shaika Chowdhury (Successfully Defended 10/19/2021), *Computer Science, UIC*
- Sahisnu Mazumder (Successfully Defended 10/18/2021), *Computer Science, UIC*
- Itika Gupta (Successfully Defended 4/14/2021), *Computer Science, UIC*
- Mehrnaz Najafi (Successfully Defended 2/22/2021), *Computer Science, UIC*
- Felix Pambuccian (Successfully Defended 2/18/2021), *Psychology, UIC*
- Mehrdad Alizadeh (Successfully Defended 5/22/2020), *Computer Science, UIC*
- Zainab Al-Qurashi (Successfully Defended 4/13/2020), *Computer Science, UIC*
- Lei Shu (Successfully Defended 2/10/2020), *Computer Science, UIC*
- Hu Xu (Successfully Defended 2/10/2020), *Computer Science, UIC*

## **Masters Thesis Committees**

- Tuhin Kundu (Successfully Defended 3/10/2021), *University of Illinois at Chicago (UIC)*
- Maddalena Andreoli (Successfully Defended 5/8/2020), *UIC*
- Tejas Sarma (Successfully Defended 3/15/2019), *UIC*
- Shoaib Khan (Successfully Defended 3/12/2019), *UIC*
- Paolo Polimeno Camastra (Successfully Defended 12/11/2018), *UIC*

## **Masters Project Committees**

- Aldo Alvarez (Spring 2019), *University of Illinois at Chicago (UIC)*
- Ashwani Khemani (Spring 2019), *UIC*
- Unaiza Faiz (Spring 2019), *UIC*

## **WCP Committees**

- Pardis Ranjbar-Noiey (Spring 2021), *University of Illinois at Chicago (UIC)*

- Ankit Aich (Spring 2021), *UIC*
- Shahla Farzana (Fall 2020), *UIC*
- Mina Valizadeh (Spring 2020), *UIC*
- Mohammad Arvan (Spring 2020), *UIC*
- Neshat Mohammadi (Spring 2019), *UIC*

## Additional Mentoring

- Devika Tiwari (2022–Present), *University of Illinois at Chicago (UIC)*
- Sachin Parsa (2022–Present), *UIC*
- Xing Qian (2021–Present), *UIC*
- Danielle Cartagenes (2021–Present), *UIC*
- Xing Qian (2021–Present), *UIC*
- Megan Herrera (2020–Present), *UIC*
- Kirsten Heath (2021), *Break Through Tech Scholar, UIC*
- Bhavana Radharapu (2021), *Break Through Tech Scholar, UIC*
- Amratya Saraswat (2021), *UIC*
- Nimeesha Chan (2020–2021), *UIC*
- Brian Nguyen (2020), *UIC*
- Sylvia Joseph (2020), *UIC*
- Hajara-Yasmin Isa (2020), *UIC*
- Mariya Pasheva (2020), *UIC*
- Ivana Pavlovic (2019–2020), *Early Research Scholars Program, UIC*
- Jessica Borowy (2019–2020), *Early Research Scholars Program, UIC*
- Noemi Andras (2019–2020), *Early Research Scholars Program, UIC*
- Soyeon Lee (2019–2020), *Early Research Scholars Program, UIC*
- Cade Gordon (2019–2021), *Adlai E. Stevenson High School*
- Salma Kamni (2019), *Amos Alonzo Stagg High School*
- Yousef Ahmed (2019), *University of Illinois at Urbana-Champaign*
- Ajata Reddy (2018–2019), *Texas Academy of Mathematics and Science (TAMS)*
- Henry Nguyen (2018-2019), *TAMS*
- John Long (2018), *TAMS*
- Skylar Werner (2018), *University of North Texas (UNT)*
- Philip Zeng (2018), *TAMS*
- Ryan Peterson (2017-2018), *TAMS*
- Hiram-Abi Yotchoum Nzia (2017-2018), *TAMS*
- Shelby Hobohm (2016-2017), *TAMS*
- Leanne Joseph (2016-2017), *TAMS*
- Soujanya Geddam (2016-2017), *TAMS*
- Yuri Castro (2016), *TAMS*
- Zaine Khoja (2016), *TAMS*
- Jacob Brunson (2015-2016), *TAMS*
- Sara Adams (2015-2016), *TAMS*
- Noelle Davis (2015-2016), *TAMS*
- Zhaochen Gu (2015-2016), *UNT*
- Adam Hair (2014-2015), *UNT*
- Keerat Baweja (2013-2015), *TAMS*

## Service

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### External Service

#### Organizer

- **Representations of the State of the World, Robot, and Human Interlocutor, and Building of Common Ground**, Session at the *Spoken Language Interaction with Virtual Agents and Robots (SLIVAR)* Meeting Series, 2022

#### Session Chair

- **Social Media Processing**, Conference on Language Resources and Evaluation (LREC), 2022
- **Birds of a Feather (Language Grounding to Vision, Robotics, and Beyond)**, Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2021
- **Birds of a Feather (NLP Applications)**, Annual Conference of the Association for Computational Linguistics (ACL), 2020
- **Midwest Speech and Language Days**, 2019

#### Area Chair

- **Ethics and NLP**, Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022

#### Mentoring

- **Open Mentoring Session**, Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2021
- **Group Mentor: Navigating Research Problems in NLP**, Annual Conference of the Association for Computational Linguistics (ACL), 2020
- **Mentoring Committee**, ACL Student Research Workshop, 2020

#### Funding Agency Panelist/Reviewer

- National Science Foundation, 2022
- National Science Foundation, 2021
- National Science Foundation, 2020
- National Science Foundation, 2019

#### Program Committees

- (NAACL 2021; 2019) Conference of the North American Chapter of the Association for Computational Linguistics
- (EACL 2021) Annual Meeting of the European Chapter of the Association for Computational Linguistics
- (ACL 2021; 2020; 2019) Annual Meeting of the Association for Computational Linguistics
- (EMNLP 2022; 2021; 2020; 2019) Conference on Empirical Methods in Natural Language Processing
- (AAAI 2021) Association for the Advancement of Artificial Intelligence, *Senior Program Committee*
- (IJCAI 2022; 2021) International Joint Conferences on Artificial Intelligence, *Senior Program Committee (2021)*
- (LREC 2022; 2020) Language Resources and Evaluation Conference
- (SemEval 2022) International Workshop on Semantic Evaluation
- (CoRL 2019) Conference on Robot Learning
- (AAMAS 2019) International Conference on Autonomous Agents and Multiagent Systems
- (LDK 2019) Conference on Language, Data and Knowledge
- (SpLU-RoboNLP 2021; 2019) Combined Workshop on Spatial Language Understanding & Grounded Communication for Robotics
- (ACL SRW 2020) ACL 2020 Student Research Workshop

## Journal Reviewing

- Computer Speech and Language, 2021
- Neurocomputing, 2019

## Additional Reviewing

- (ACL RR 2021–Present) ACL Rolling Review
- (CHI 2019) ACM CHI Conference on Human Factors in Computing Systems

## Outreach Programming

- **Application Reviewer**, NCWIT Aspirations in Computing Award, 2017, 2015
- **Activity Instructor**, Design Your World STEM Conference for Girls, November 2017, April 2016, March 2015
- **Student Group Leader**, Design Your World STEM Conference for Girls, April 2017
- **Panelist**, NCWIT Aspirations in Computing Ceremony, February 2016
- **Presenter**, NCWIT Aspirations in Computing Ceremony, February 2015

## Additional Volunteering

- (EMNLP 2017) Conference on Empirical Methods in Natural Language Processing
- (IJCAI 2015) International Joint Conference on Artificial Intelligence

## Internal Service

*University of Illinois at Chicago*

## Departmental Committee Memberships

- CS Advisory Committee (2021–Present)
- Undergraduate Committee (2020–Present)
- Graduate Admissions Committee (Spring 2021)
- NSF Broadening Participation in Computing Committee (2020)

## Other Committee Memberships

- Hiring Committee (External Member): Tenure-Track Assistant Professor in Technology, Information Literacy and Wellbeing, *Department of Communication* (2021–Present)

## Outreach Programming

- **Invited Speaker**, GradSWE Women's Empowerment Series, Spring 2022
- **Presenter**, exploreCSR Data Science Workshop, Spring 2022, Fall 2021
- **Panelist**, *Women in Academia Panel* at WiCS Women in Tech Week, Spring 2021
- **Mentor**, exploreCSR Problem Solving and Research Workshop, Spring 2021, Spring 2020
- **Team Leader**, UIC Women in CS Scavenger Hunt, Fall 2020, Fall 2019
- **Interviewer**, College of Engineering Women's Scholarship Program, Spring 2020, Spring 2019
- **Panelist**, exploreCSR Problem Solving and Research Workshop, Fall 2019
- **Faculty Chaperone**, Grace Hopper Celebration of Women in Computing, Fall 2019

## Miscellaneous

- **Faculty Fellow**, Honors College, Fall 2020–Present
- **Computer Science Marshal**, UIC Commencement Ceremony, Spring 2019
- **Proposal Reviewer**, Discovery Partners Institute (DPI) Seed Funding Cycle 1 Program, Winter 2018/19

### Outreach Programming

- **Activity Leader**, STEM Academy Middle School Summer Camp, July 2018, July 2017, July 2016
- **Activity Leader**, UNT Engineering REAL Community, October 2015

### Miscellaneous

- **Site Facilitator**, North American Computational Linguistics Olympiad, 2018, 2017, 2016, 2014
- **Judge**, UNT Showcase of Undergraduate Research in Engineering, Fall 2013
- **Engineering Ambassador**, UNT College of Engineering, 2012-2013

### Miscellaneous

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**Member**, Association for Computing Machinery

**Member**, Association for Computational Linguistics

**Former President**, UNT Women in Computing