NATALIE PARDE

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EDUCATION

Doctor of Philosophy, University of North Texas
Computer Science and Engineering
Expected Graduation: Spring 2018

Master of Science, University of North Texas
Computer Science
December 2016

Bachelor of Science, University of North Texas
Computer Science
summa cum laude
Honors Scholar Award
August 2013

RESEARCH EXPERIENCE

Human Intelligence and Language Technologies Lab
Department of Computer Science and Engineering, University of North Texas
Graduate Research Assistant, August 2013 – Present
Undergraduate Research Assistant, June 2013 – August 2013

Software and Knowledge Engineering Laboratory
Institute of Informatics and Telecommunications, National Center for Scientific Research Demokritos
International Research-centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis, July 3 – 30, 2014

Reconfigurable Computing Lab
Department of Electrical Engineering, University of North Texas
Undergraduate Research Assistant, August 2012 – May 2013

Summer Undergraduate Program in Engineering Research (SUPER)
College of Engineering, University of North Texas
Research Assistant, June 2012 – July 2012

AWARDS AND HONORS

National Science Foundation Graduate Research Fellowship
National Science Foundation, 2014

- Five-year fellowship providing three years of financial support, international research and professional development opportunities, and XSEDE Supercomputer access. Financial support includes a $32,000 stipend for each supported year, as well as a $12,000 cost-of-education allowance to the educational institution.
- First student from the University of North Texas Department of Computer Science and Engineering to win this award in the 43-year history of the department
- Total Award Amount: $132,000

Golden Eagle Award
University of North Texas, 2016

- UNT's most prestigious individual award, bestowed upon students who have had a tremendous impact on the UNT community through their commitment to co-curricular involvement, engagement in service to UNT and the greater community, commitment to impeccable leadership, and achievement of academic excellence

Dr. Hermann Zemlicka Award for Most Visionary Paper
Gmunden Retreat on NeuroIS, 2017

- Awarded for the most visionary paper at the 2017 Gmunden Retreat on NeuroIS in Gmunden, Austria.
- Paper Title: Using EEG Signal to Analyze IS Decision Making Cognitive Processes

First Prize – IRSS 2014
National Center for Scientific Research Demokritos, 2014

- First-place project out of 13 one-month projects created by teams of students from around the world, awarded by a panel of judges from a variety of European research institutions

People's Choice Award – IRSS 2014
National Center for Scientific Research Demokritos, 2014

- First-place project, based on a vote among all students at the International Research-centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis (IRSS 2014)

Toulouse Graduate School Travel Grant
University of North Texas, 2017

- Monetary award to offset travel costs associated with attending the 2017 International Florida Artificial Intelligence Research Society Conference in Marco Island, Florida.
- Total Award Amount: $500

College of Engineering Travel Grant
University of North Texas, 2017

- Monetary award to offset travel costs associated with attending the 2017 International Florida Artificial Intelligence Research Society Conference in Marco Island, Florida.
- Total Award Amount: $750

IJCAI Doctoral Consortium Travel Grant
International Joint Conference on Artificial Intelligence/National Science Foundation, 2015

- Monetary award to offset travel costs associated with attending the 2015 International Joint Conference in Artificial Intelligence in Buenos Aires, Argentina.
- Total Award Amount: $1390

CRA-W Workshop and Travel Scholarship
Computing Research Association Committee on the Status of Women in Computing, 2015

- Comprehensive scholarship covering all travel, lodging, and other related fees to attend the 2015 CRA-W Graduate Cohort Workshop in San Francisco, California

IRSS 2014 Scholarship
National Center for Scientific Research Demokritos, 2014

- Comprehensive award covering all accommodations for one month in Agia Paraskevi, Greece, tuition for the International Research-centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis (IRSS 2014), and additional related fees.

College of Engineering Travel Grant
College of Engineering, University of North Texas, 2014

- Award to partially subsidize the cost of attending and presenting a paper at the 2nd Annual GIFT Users Symposium at Carnegie Mellon University in Pittsburgh, Pennsylvania from June 12-13, 2014
- Total Award Amount: $500

CRA-W Workshop and Travel Scholarship
Computing Research Association Committee on the Status of Women in Computing, 2014

- Comprehensive scholarship covering all travel, lodging, and other related fees to attend the 2014 CRA-W Graduate Cohort Workshop in Santa Clara, California

Graduate Assistantship Tuition Scholarship
Toulouse Graduate School, University of North Texas, 2013

- Comprehensive scholarship covering tuition and all mandatory fees, awarded by the Toulouse Graduate School only to students nominated by their departments

Academic Achievement Scholarship
Toulouse Graduate School, University of North Texas, 2013

- Competitive scholarship awarded to outstanding incoming doctoral and MFA students by the Toulouse Graduate School
- Award Amount: $1000, renewable for one year

Departmental Travel Award
Department of Computer Science and Engineering, University of North Texas, 2013

- Comprehensive award covering all travel, lodging, dining, and registration fees to attend the 2013 Grace Hopper Celebration of Women in Computing in Minneapolis, Minnesota

- Total Award Amount: $1801.71

Board of Regents' Excellence Scholarship
University of North Texas, 2009 – 2013
- Highly competitive, renewable undergraduate scholarship awarded based on academic merit
- Total Award Amount: $20,000

Engineering Ambassador Scholarship
College of Engineering, University of North Texas, 2012
- Scholarship awarded to ambassadors by the College of Engineering
- Award Amount: $1000

C.J. Davidson Honors Scholarship
Honors College, University of North Texas, 2011
- Highly competitive merit-based scholarship awarded to outstanding Honors College students
- Award Amount: $500

Achievement Scholarship
University of North Texas, 2009
- Competitive merit-based scholarship awarded to outstanding incoming undergraduate students
- Award Amount: $1000

PUBLICATIONS

Nabila Salma, Bin Mai, Kamesh Namuduri, Rasel Mamun, Yassir Hashem, Hassan Takabi, Natalie Parde, and Rodney Nielsen. Using EEG Signal to Analyze IS Decision Making Cognitive Processes. To appear in *Information Systems and Neuroscience*, Lecture Notes in Information Systems and Organisation.

Masoud Narouei, Hamed Khanpour, Hassan Takabi, Rodney Nielsen and Natalie Parde. Towards a Top-down Policy Engineering Framework for Attribute-based Access Control. To appear in the *Proceedings of the 22nd ACM Symposium on Access Control Models and Technologies*. Indianapolis, Indiana, June 21-23, 2017.

Natalie Parde and Rodney 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.

Natalie Parde, Adam Hair, Michalis Papakostas, Konstantinos Tsiakas, Maria Dagioglou, Vangelis Karkaletsis, and Rodney D. Nielsen. Grounding the Meaning of Words through Vision and Interactive Gameplay. In *Proceedings of the 2015 International Joint Conference on Artificial Intelligence*, Buenos Aires, Argentina, July 25-31, 2015.

Michalis Papakostas, Konstantinos Tsiakas, Natalie Parde, Vangelis Karkaletsis, and Fillia 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.

Natalie Parde, Michalis Papakostas, Konstantinos Tsiakas, and Rodney 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.

Natalie Parde, Michalis Papakostas, Konstantinos Tsiakas, Maria Dagioglou, Vangelis Karkaletsis, and Rodney 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.

Natalie Parde and Rodney 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.

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

Gayatri Mehta, Carson Crawford, Xiaozhong Luo, Natalie Parde, Krunal Patel, Brandon Rodgers, Anil Sistla, Anil Yadav, and Marc Reisner. (2013). UNTANGLED – A game environment for discovery of creative mapping strategies. In *ACM Transactions on Reconfigurable Technology and Systems*, Vol. 6, No.3.

Gayatri Mehta, Xiaozhong Luo, Natalie Parde, Krunal Patel, Brandon Rodgers, and Anil K. Sistla. "Untangled: A game environment for discovery of creative mapping strategies." *ACM Transactions on Reconfigurable Technology and Systems (TRETS)* 6.3 (2013): 13.

Anil Sistla, Natalie Parde, Krunal Patel, and Gayatri 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.

OTHER PRESENTATIONS

Natalie Parde and Rodney 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.

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

Natalie Parde and Rodney 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.

Natalie Parde and Rodney 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.

Natalie Parde and Rodney D. Nielsen. (2014). 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.

VOLUNTEER AND SERVICE WORK

Student Group Leader, Design Your World STEM Conference for Girls
Society of Women Engineers, April 2017

- Served as leader and group mentor for a group of approximately 20 6-8th grade girls from the DFW area
- Assisted with activities including Alice Programming, Drone Building, and Invention Challenge

Site Facilitator, NACLO
North American Computational Linguistics Olympiad, January 2017

- Proctored and assisted in organizing the UNT site of the 2017 North American Computational Linguistics Olympiad, a nation-wide high school competition designed to introduce students to natural language processing and to select the U.S. teams for the International Linguistics Olympiad

Activity Leader, STEM Academy Summer Camp
Texas Academy of Mathematics and Science, July 2016

- Organized and led a four-hour session designed to teach 6-8th grade students from the Denton area how to program NAO robots using Python

Activity Instructor, Design Your World STEM Conference for Girls
Society of Women Engineers, April 2016

- Taught three 1.5-hour sessions of 6-8th grade girls from the DFW area to program and test energy sensors using Arduino

Site Facilitator, NACLO
North American Computational Linguistics Olympiad, January – March 2016

- Proctored and assisted in organizing the UNT site's open and invitational rounds of the 2016 North American Computational Linguistics Olympiad, a nation-wide high school competition designed to introduce students to natural language processing and to select the U.S. teams for the International Linguistics Olympiad

Panelist, NCWIT Aspirations in Computing Award Ceremony

National Council for Women in Technology, February 2016

- Spoke about my experiences as a graduate and undergraduate student in computer science to an audience of female high school students interested in computer science careers and their parents

Application Reviewer, NCWIT Aspirations in Computing Award
National Council for Women in Technology, December 2015

- Reviewed applications for the high school division of NCWIT's Aspirations in Computing Award, an award for individuals who have shown outstanding technical and leadership potential in the field of computer science

Activity Leader, UNT Engineering REAL Community
University of North Texas, October 2015

- Led a team of freshmen living in UNT's engineering dorm in an activity in which the students competed to build the best bridge from a finite number of popsicle sticks and hot glue

Computer Science Representative, UNT Grad Studies Expo
University of North Texas, September 2015

- Provided advice and computer science-specific information (e.g., different research areas, potential careers, etc.) with prospective graduate students

Volunteer, IJCAI 2015
International Joint Conference on Artificial Intelligence, July 2015

- Selected for the IJCAI volunteer program and received free conference registration in exchange for assistance with a variety of conference tasks
- Facilitated daily press conferences during which a small selection of conference speakers and IJCAI executives presented research summaries to the international news media
- Broadcasted press conferences live to media outlets (including BBC, the Australian Broadcasting Corporation, Uman Comunicaciones, and others), and archived footage for later viewing
- Co-facilitated the interactive session of an invited presentation
- Provided support for tutorial and conference sessions

Activity Instructor, Design Your World STEM Conference for Girls: Society of Women Engineers and Dallas ISD STEM Department, March 2015

- Taught programming to groups of 4^{th} and 5^{th} grade girls in the south Dallas area in 90-minute sessions using the Alice programming environment

Presenter, NCWIT Aspirations in Computing Award Program: National Center for Women in Technology, February 2015

- Gave a series of presentations to outstanding female high school students in computer science and their parents to provide information regarding undergraduate research in computer science and information on the college admissions process, as well as to provide mentorship regarding issues specific to female students in computer science

Invited Lecturer, UNT CSCE 1010: University of North Texas, April 2014, November 2014, April 2015, November 2015

- Lecture Topic: Introduction to Robotics with NAO
- Instructed an introductory programming class for non-engineering majors, teaching students about robotics research and the various ways that robotics applications can be used to help society
- Provided a demonstration on how to create basic programs for NAO robots by dragging and connecting various actions and control structures in a visual programming environment

Site Facilitator, North American Computational Linguistics Olympiad: University of North Texas, January 2014 - Present

- Helped plan and facilitate the competition at UNT, bringing in the third-largest number of pre-registrations out of all university NACLO sites
- Performed pre-event public relations outreach including an oral presentation to 200 students at the Texas Academy of Mathematics and Science
- Communicated with the NACLO coordinators to supervise the competition and submit the completed test booklets

Judge, Showcase of Undergraduate Research in Engineering: University of North Texas, September 2013

- Judged poster presentations from a selection of undergraduate students based on technical content, oral presentation skills, poster design, and abstract quality and relevance

Engineering Ambassador, College of Engineering: University of North Texas, 2012 – 2013

- Served as a representative of the College of Engineering at UNT functions
- Led personalized tours of Discovery Park, the College of Engineering campus
- Aided in recruitment events for the College of Engineering

AFFILIATIONS

UNT Women in Computing
President: September 2015 – present
Member: September 2013 – present

UNT Chapter, Association for Computing Machinery
Member: September 2012 – present

STUDENTS MENTORED

Undergraduates:
Adam Hair, UNT Computer Science student, 2014 – 2015

- Currently a Ph.D. student at Texas A&M University

Zhaochen Gu, UNT Computer Science student, 2015 – Present

High School Students:
Keerat Baweja, Texas Academy of Mathematics and Science (TAMS) student, 2013 – 2015

- Winner of a DFW Regional NCWIT Aspirations in Computing Award for outstanding female high school students in computer science
- Currently at University of Texas – Austin

Jacob Brunson, TAMS student, 2015 – 2016

- Currently at University of Texas – Dallas

Sara Adams, TAMS, 2015 – 2016

- Winner of a DFW Regional NCWIT Aspirations in Computing Award for outstanding female high school students in computer science
- Currently at California Institute of Technology

Noelle Davis, TAMS student, 2015 – 2016

Shelby Hobohm, TAMS student, 2016 – 2017

- Winner of a DFW Regional NCWIT Aspirations in Computing Award for outstanding female high school students in computer science

Leanne Joseph, TAMS student, 2016 – 2017

- Winner of a DFW Regional NCWIT Aspirations in Computing Award for outstanding female high school students in computer science and runner-up for the national award

Yuri Castro, TAMS student, 2016

Soujanya Geddam, TAMS student, 2016 – 2017

Zaine Khoja, TAMS student, 2016

Ryan Peterson, TAMS student, 2017 – Present

Saketh Gollapudi, TAMS student, 2017 – Present