MARIE D. MANNER   manne044@umn.edu

EDUCATION
Ph.D. *Computer Science*, University of Minnesota, 2018
Advisor: Dr. Maria Gini
Thesis: Leveraging Computer Vision and Humanoid Robots to Detect Autism in Toddlers
M.S. *Computer Science*, Psychology minor, University of Minnesota, 2013
B.S. *Mathematics*, Computer Science minor, St. Catherine University, 2009

RESEARCH INTERESTS
Artificial intelligence and robotics, including applications of humanoid robots
and computer vision to diagnose and support children with developmental disorders.

PROFESSIONAL WORK EXPERIENCE

3M, Data Scientist	Jan. '19 - current
Smart Information Flow Technologies (SIFT), Research Intern	May '17 - Dec. '18
Express Employment Professionals, Web Support Specialist	July '12 - March '14
Delft University of Technology, Dep. of Intelligent Systems, Research Assistant	May-July '12
Pearson VUE, SQA Analyst and Team Lead	May '11 – Aug. '11
Pearson VUE, Software Quality Assurance Analyst	June '09 – Aug. '10
Bsquare, Quality Assurance Engineer	June '07 – July '09

JOURNAL PUBLICATIONS
Kirsten Dalrymple, **Marie Manner,** Katherine Harmelink, Elayne Teska, Jed Elison
An examination of recording accuracy and precision from eye tracking data from toddlerhood to adulthood. Frontiers: Developmental Psychology. 2018

Ernesto Nunes, **Marie Manner**, Hakim Mitiche and Maria Gini
A taxonomy for task allocation problems with temporal and ordering constraints
Robotics and Autonomous Systems, Volume 90, pp. 55–70, April 2017

CONFERENCE PUBLICATIONS
Marie D Manner
Identifying differences in social responsiveness among preschoolers interacting with or watching social robots
Doctoral Consortium, International Joint Conference on Artificial Intelligence (IJCAI), 2018

Marie D. Manner, Ming Jiang, Qi Zhao, Maria Gini, Jed Elison
Determining child orientation from overhead video: a multiple kernel learning approach
IEEE International Conference on Systems, Man, and Cybernetics, 2017

Marie D. Manner
Using Small Humanoid Robots to Detect Autism in Toddlers
Doctoral Consortium, International Joint Conference on Artificial Intelligence (IJCAI),
pp. 4383-4384, 2015

WORKSHOP AND OTHER PRESENTATIONS

Sunday Francis, Diksha Srishyla, Diana Back, Kirsten Dalrymple, **Marie D. Manner,** Jed Elison, Suma Jacob
Using eye-tracking to investigate social information processing in autism spectrum disorders (poster)
International Society for Autism Research, May 2018

Marie D. Manner, Maria Gini, Jed Elison
Graphically representing child-robot interaction proxemics
Health Intelligence Workshop, Association for the Advancement of Artificial Intelligence (AAAI), 2018

Nadja Richter, **Marie Manner**, Carolyn Lasch, Kirsten Dalrymple, Jed Elison
Investigating young children's social engagement during play interaction with a humanoid robot: an observational assessment (poster)
Biennial Meeting of the Society for Research in Child Development (SRCD), 2017

Marie Manner, Jed Elison and Maria Gini
Leveraging Computer Vision and Humanoid Robots to Detect Autism in Toddlers
Knowledge Discovery in Healthcare Data Workshop, International Joint Conference on Artificial Intelligence (IJCAI), 2016

Denise Szecsei, **Marie D. Manner**
Girls and Robots in the Performing Arts
Women in AI and CS Workshop, International Joint Conference on Artificial Intelligence (IJCAI), 2015

Marie D. Manner, M. Birna van Riemsdijk, and Catholijn M. Jonker
Using the Gatekeeper concept to design and assign multiagent teams
Multiagent Interaction Networks Workshop, Autonomous Agents and Multiagent Systems (AAMAS), 2013

Marie D. Manner, Maria Gini
Improving agent team performance through helper agents
Cognitive Agents in Virtual Environments Workshop, Autonomous Agents and Multiagent Systems (AAMAS), 2012

Marie D. Manner
Improving agent team performance through helper agents (poster)
2nd Regional Celebration of Women in Computing in the Upper MidWest (MinneWIC), 2012

TEACHING EXPERIENCE
St. Catherine University, Department of Math and Physics
     Adjunct Lecturer, Sept. 2013 – May 2014
     Computer Science Teaching Assistant, Jan. 2008 - 2009

University of Minnesota – Twin Cities, Department of Computer Science and Engineering
      - Computing Academy Instructor, 2015 - 2018

     - Teaching Assistant, 2010 - 2018
            - Artificial Intelligence (writing intensive), January 2018 - May 2018
            - Introduction to Operating Systems, August 2015 - May 2017
            - Machine Architecture and Organization, August 2010 - December 2012

RELATED TEACHING EXPERIENCE
University of Minnesota – Twin Cities, Department of Computer Science and Engineering
     Computer Science Resource Instructor, Aug. 2012
     -     Assisted teaching incoming graduate students from foreign countries about
           TA duties and introduce them to department teaching and cultural
           expectations (3 week program).

St. Catherine University, Department of Math and Physics
     Mathematics Tutor, Sept. 2007 – May 2009
     -     Tutored introductory to advanced college-level courses such as advanced
           calculus and differential equations.

SERVICE
National

     Robotics Alley, University of Minnesota Booth, Nov. 2013
     -     University of Minnesota representative, NAO robot demonstrator.

     Grace Hopper Celebration of Women in Computing (GHC), CRA-W's Student Opportunity Labs, Oct.
     2013, 2014
     -     Table leader; discussed how to decide and how to apply to graduate school.

University

     Regional Celebration of Women in Computing in the Upper MidWest (MinneWIC)
      -     Birds of a Feather session, Feb. 2015
            -     Organizer; session, "Increasing the number of women in computer science."
      -     Graduate School Panel, Feb. 2012
            -     Panelist; discussed getting into and making the most of graduate school.

     University of Minnesota
      -     Senate Research Committee
            -     Research Openness Subcommittee, student member, Jan. 2015 - June 2017
      -     Department of Computer Science and Engineering

- Computer Science Graduate Student Association, Treasurer, Sept. 2015 - 2018
- Computer Science Graduate Student Association, Vice President, Sept. 2012 - Sept. 2015

St. Catherine University, Department of Math and Physics
- Engineering Club, Vice President, 2008 – 2009

Community

University of Iowa, Computer Science Department
- Robot Theater Summer Camp Co-instructor, 2015 - 2017
  - One of five instructors teaching a one to two-week robot theater summer camp for middle school girls or co-ed camps. Assisted teaching how to use, program, and safely manipulate the NAO robots to perform monologues, skits, and interactive conversations.

University of Minnesota, Department of Computer Science and Engineering

- Women in Computer Science Coordinator, Sept. 2011 – Aug. 2017
  - Recruit guest speakers for intercollegiate guest lecture series from industrial and academic roles, organize women in computer science events, work with other collegiate coordinators for college-wide network events
- Minnesota State Fair volunteer, NAO robot demonstrator, Aug. 2014

- Technology Day Camp volunteer, assisting solder / assemble hardware kits, Aug. 2014

Minneapolis Adult Basic Education, June 2013 – Oct. 2015
- Math volunteer; weekly volunteer math tutor for pre-GED students

The Works Museum
- "Robot Day" University of Minnesota representative, NAO robot demonstrator, April 2013-2016
- "Girl Time" SIFT representative, demonstrating how to program a NAO, Sept. 2017

AWARDS, GRANTS, AND HONORS
- Graduate Assistant in Areas of National Need (GAANN) Fellowship, 2013 - 2015
- Microsoft's "She Inspires Me" award, 2013
- NSF Scholarship for Science, Technology, Engineering, and Mathematics recipient, 2007 - 2009
- National Science and Mathematics Access to Retain Talent (SMART) Grant recipient, 2006 – 2008
- Pi Mu Epsilon, 2007

OTHER ACTIVITIES
- Society of Research in Child Development (SRCD) attendee, 2017
- International Joint Conference on Artificial Intelligence (IJCAI) attendee, 2015, 2016, 2018
- Association for the Advancement of Artificial Intelligence (AAAI) attendee, 2014, 2015, 2018
- IEEE-RAS International Conference on Humanoid Robots attendee, 2013
- Minnesota Teacher Licensure Examinations (MTLE) mathematics tutor, 2013
- Autonomous Agents and Multiagent Systems (AAMAS) attendee, 2012, 2013, 2014
- Robotics Alley attendee, 2012, 2013

- European Agent Systems Summer School (EASSS) attendee, 2012
- Minnesota Women in Computing (MinneWIC) attendee, 2010, 2012, 2015, 2017
- Grace Hopper Celebration; attendee, 2009 – 2014
- Pi Mu Epsilon honor society; member, 2007 – present
- Twin Cities Quality Assurance Association; attendee, 2007 – 2009
- St. Catherine University Science, Technology, Engineering, Math (STEM) scholar program; active participant, 2007 - 2009