

Sarah Strohkorb

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Department of Computer Science, Yale University

Research Interests

Socially assistive robotics, human-robot interaction, artificial intelligence, personalization, cognitive modeling

Education

Yale University, New Haven, CT,
Second-Year Ph.D. Candidate in Computer Science, advised by Brian Scassellati.

May 2014 **Franklin W. Olin College of Engineering**, Needham, MA,
Bachelor of Science in Electrical and Computer Engineering, *GPA 3.87*.

Research Experience

Graduate Projects

Spring 2015 - **Promoting Social Collaboration with a Social Robot**, Yale University.

Fall 2015 Designed, implemented, and ran a study to promote collaborative behaviors in children while performing a teaming task with a social robot. Managed seven undergraduates that contributed to the project.

Fall 2014 **Automatic Recognition of Social Dominance in Children**, Yale University.

Worked with a Post Doc student, developing a machine learning algorithm to automatically predict the social dominance of children in a group setting.

Undergraduate Projects

Fall 2013 - **Data Reduction in the Facebook Android App**, Facebook Inc., Senior Design
Spring 2014 Project in Engineering at Olin College, *Project Manager*.

On a team of five, developed a mock-up of the Facebook Android application that enables peer-to-peer connections to improve the Facebook Android app experience for those in emerging markets with low-bandwidth and unreliable networks. www.p2feed.com

Fall 2012 **Maze-Solving Robot**, Olin College, Self Study in Artificial Intelligence: Programming a Robotic Car.

As a team of two, constructed an Arduino controlled robot that would know the map of a maze and navigate to a goal location. The robot was randomly placed in the maze, detected its location using a particle filter, and navigated to the goal using a path planning algorithm.

Work Experience

Summer **Cogo Labs**, Cambridge, MA.

2013 Built a horoscope website with the goal of obtaining user sign-ups for daily emails. Learned how to create a simple web start-up and helped to improve analytic techniques of user behavior.

Summer **Garmin International Inc.**, Aviation Division, Olathe, KS.

2012 Developed software tests for the G1000 re-release (Garmin's glass-cockpit system) based on requirement standards enforced by the FAA.

Summer **NASA: Goddard Space Flight Center**, *Astrophysics Science Dpt.*, Goddard, MD.
2011 Worked on two research teams. For one team, modeled and produced an electrostatic lens for an analog signal to x-ray transmitter. And for the other transformed an analog signal/x-ray transmitter and receiver to work with digital signals. Demoed successful work to NASA engineers.

Teaching Experience

Fall 2015 **Teaching Assistant**, *Yale University*.
Taught a weekly section, graded homework assignments, held office hours, and guided student projects in the Yale-Harvard CS50 introductory programming course.

Fall 2014 **Teaching Assistant**, *Olin College*.
Graded homework assignments, held office hours, and guided student projects in the Software Design introductory programming course.

Fall 2013, **Course Tutor**, *Olin College*.
Spring 2012 Tutored students in Linear Algebra and time management skill development.

Publications

Peer-reviewed Conference Publications:

Sarah Strohkorb, Iolanda Leite, Natalie Warren, Brian Scassellati (2015). Classification of Children's Social Dominance in Group Interactions with Robots. In: *Proceedings of the 2015 ACM on International Conference on Multimodal Interaction* (pp. 227-234). ACM.

Peer-reviewed Workshop Publications:

Sarah Strohkorb and Brian Scassellati (2015). Promoting Social Collaboration between Children with a Social Robot. In: *Proceedings of the 2015 AAAI Fall Symposium on AI for Human-Robot Interaction (AI-HRI 2015)*. AAAI Press.

Reviewing

AAAI Fall Symposium on Artificial Intelligence and Human-Robot Interaction, 2015
International Conference on Social Robotics (ICSR), 2015

Leadership and Activities

Fall 2014 - **Robotics Outreach**, *Yale University*.
present Regularly participate in a variety of outreach activities showcasing robots from the Yale Social Robotics lab at open houses, visits to local schools, and public events.

Fall 2013 - **Exchange Student Resident Resource**, *Olin College*.
Spring 2014 Acted as a student resource in dorms for all exchange students. Helped to organize orientation and events, respond to emergencies, resolve conflicts, and respect confidentiality.

August 2011 **Olin College Honor Board**, *Vice Chair*.
- May 2012 Acted as leadership on the judicial system for students at Olin college.

Skills

Android, C, C++, CSS, Eclipse, HTML, Git, Java, Linux platforms, MATLAB, Python, Ruby on Rails, SQL, SVN