STELA HANBYEOL SEO

UNIVERSITY OF MANITOBA
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stelaseo.ca

AFFILIATIONS

Ph.D Student, M.Sc.
Computer Science
University of Manitoba
Winnipeg, Manitoba, Canada

EDUCATION

09/2015–PRESENT   UNIVERSITY OF MANITOBA
Ph.D., Computer Science, advisor: James E. Young
"Visual interface techniques for maintaining team awareness in multi-robot teleoperation"

09/2012–01/2015   UNIVERSITY OF MANITOBA
M.Sc., Computer Science, advisor: James E. Young
"A simulated robot versus a real robot: an exploration of how robot embodiment impacts people's empathic responses"

09/2006–10/2012   UNIVERSITY OF MANITOBA, CANADA
B.C.Sc. Hons., Computer Science, specializations: Artificial Intelligence, Databases, Software Engineering

PUBLICATIONS

Peer Reviewed Journal Publications

Stela H. Seo, Keelin Griffin, James E. Young, Andrea Bunt, Susan Prentice, Veronica Loureiro-Rodríguez. "Investigating people's rapport building and hindering behaviors when working with a collaborative robot," *International Journal of Social Robotics*, 2018. Springer.

Denise Y. Geiskkovitch, **Stela H. Seo**, Derek Cormier, James E. Young. "Please continue, we need more data: an exploration of obedience to robots," *Journal of Human Robot Interaction*, vol.5, no.1, 2015, pp. 82-99.

Pak Ching Li, G. H. John van Rees, **Stela H. Seo**, Navin M. Singhi. "Friendship 3-hypergraphs," *Discrete Mathematics*, vol. 312, no.11, 2012, pp. 1892-1899. Elsevier.

Peer Reviewed Conference Full Papers

Stela H. Seo, James E. Young, Pourang Irani. "Where are the robots? In-feed embedded techniques for visualizing robot team member locations," *IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN*, 2017. Lisbon, Portugal. [oral presentation by **Stela H. Seo**]

Stela H. Seo, Daniel J. Rea, Joel Wiebe, James E. Young. "Monocle: interactive detail-in-context using two pan-and-tilt cameras to improve teleoperation effectiveness," *IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN*, 2017. Lisbon, Portugal. [oral presentation by **Stela H. Seo**]

Daniel J. Rea, **Stela H. Seo**, Neil Bruce, James E. Young. "Movers, shakers, and those who stand still: visual attention-grabbing techniques in robot teleoperation," *ACM/IEEE International Conference on Human-Robot Interaction*, 2017. Vienna, Austria.

Stela H. Seo, Jihyang Gu, Seongmi Jeong, Keelin Griffin, James E. Young, Andrea Bunt, Susan Prentice. "Women and men collaborating with robots on assembly lines: designing a novel evaluation scenario for collocated human-robot teamwork," *ACM International Conference on Human-Agent Interaction*, 2015. Daegu, Kyungpook, Republic of Korea. [oral presentation by **Stela H. Seo**]

Stela H. Seo, Denise Geiskkovitch, Masayuki Nakane, Corey King, James E. Young. "Poor thing! Would you feel sorry for a simulated robot? A comparison of empathy toward a physical and a simulated robot," *ACM/IEEE International Conference on Human-Robot Interaction*, 2015. Portland, Oregon, USA. [oral presentation by **Stela H. Seo**]

Stela H. Seo, Kazuki Takashima, Jim Young, Yoshifumi Kitamura. "Alerting users by animating content on a transforming tabletop interface," *Human Interface Symposium, HIS*, 2014. Kyoto, Japan. [oral presentation by **Stela H. Seo**]

Ashish Singh, **Stela H. Seo**, Yasmeen Hashish, Masayuki Nakane, James E. Young, Andrea Bunt. "An interface for remote robotic manipulator control that reduces task load and fatigue," *IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN*, 2013. Gyeongju, Republic of Korea. [oral presentation by **Stela H. Seo**]

Jacky Baltes, **Stela Seo**, Chi Tai Cheng, M.C. Lau, John Anderson. "Learning of facial gestures using SVMs," *Next Wave in Robotics: Communications in Computer and Information Science*, vol. 212, 2011, pp. 147–154. Springer.

Peer Reviewed Conference Extended Abstracts, Posters, Videos, Workshops

Stela H. Seo, James E. Young. "Picassnake: robot performance art," *ACM/IEEE International Conference on Human-Robot Interaction, Video Presentations*, 2017. Vienna, Austria.

Denise Geiskkovitch, **Stela H. Seo**, James E. Young. "Autonomy, embodiment, and obedience to robots," *ACM/IEEE International Conference on Human-Robot Interaction, HRI Pioneers Workshop*, 2015. Portland, Oregon, USA.

Stela H. Seo, James E. Young, Andrea Bunt. "Exploring the role of affect recognition in web-capable applications," *Graphics Interface Conference, Poster Session*, 2013. Regina, Saskatchewan, Canada.

Non-peer Reviewed Publications

Stela H. Seo, James E. Young, and Andrea Bunt. "Exploring user attitudes toward affect recognition in web-capable applications," *Technical Report*. 2012. University of Manitoba.

RESEARCH EXPERIENCE

09/2012–**PRESENT**	RESEARCH ASSISTANT (M.SC. & PH.D.) Human-Robot Interaction Laboratory, University of Manitoba supervisor: James E. Young
05/2014–09/2014	RESEARCH ASSISTANT (INTERNSHIP ABROAD) Interactive Content Design, Tohoku University supervisor: Yoshifumi Kitamura, James E. Young, and Kazuki Takashima
01/2014–06/2014 09/2012–02/2013	RESEARCH ASSISTANT (INDUSTRIAL COLLABORATION) Human-Robot Interaction Laboratory, University of Manitoba & Inuktun, BC supervisor: James E. Young
05/2012–08/2012	RESEARCH ASSISTANT Human-Robot Interaction Laboratory, University of Manitoba supervisor: James E. Young and Andrea Bunt
01/2012–04/2012	UNDERGRADUATE HONOURS PROJECT Human-Robot Interaction Laboratory, University of Manitoba supervisor: James E. Young
09/2011–12/2011	RESEARCH ASSISTANT (CO-OP WORK-TERM) Human-Robot Interaction Laboratory, University of Manitoba supervisor: James E. Young and Andrea Bunt
04/2009–08/2011	RESEARCH ASSISTANT Autonomous Agents Laboratory, University of Manitoba supervisor: John Anderson and Jacky Baltes
01/2010–04/2010	RESEARCH ASSISTANT (CO-OP WORK-TERM) Computational Discrete Mathematics Laboratory, University of Manitoba supervisor: John van Rees

TEACHING EXPERIENCE

01/2018–04/2018	SESSIONAL INSTRUCTOR (COMP2160 PROGRAMMING PRACTICES) Computer Science, University of Manitoba course director: **Stela H. Seo**
09/2017–12/2017	SESSIONAL INSTRUCTOR (COMP2160 PROGRAMMING PRACTICES) Computer Science, University of Manitoba course director: Yang Wang

Teaching Assistant in Computer Science, University of Manitoba

COMP1010 INTRODUCTION TO COMPUTER SCIENCE (S'15 YOUNG)

COMP1260   COMPUTER USAGE I (F'12 PENNER)

COMP2140   DATA STRUCTURES AND ALGORITHMS (F'11 DUROCHER)

COMP2160   PROGRAMMING PRACTICES (W'15 COOPER, F'14 BOYER & COOPER, F'13 ZAPP & BRAICO, F'11 BRAICO)

COMP3010   DISTRIBUTED COMPUTING (S'12 BRAICO)

COMP3020   HUMAN-COMPUTER INTERACTION I (F'13 YOUNG)

COMP3350   SOFTWARE ENGINEERING I (W'13 BRAICO)

COMP3430   OPERATING SYSTEMS (S'17 YOUNG, W'16 BRAICO, W'15 BOYER, W'14 YOUNG, W'13 YOUNG, W'12 GRAHAM)

COMP4180   INTELLIGENT MOBILE ROBOTICS (F'11 BALTES)

COMP4360   MACHINE LEARNING (W'12 BALTES)

INDUSTRY EXPERIENCE

05/2011–08/2011   SOFTWARE DEVELOPER (CO-OP WORK TERM)
Taibotics, Kaohsiung, Taiwan

09/2010–05/2011   WEB APPLICATION DEVELOPER
Manitoba Centre of Health Policy, University of Manitoba

02/2009–06/2009   JAPANESE LANGUAGE TUTOR
Manitoba Japanese Canadian Cultural Centre

AWARDS (All values are quoted in Canadian Dollars)

Academic Awards

09/2016–**PRESENT**   POSTGRADUATE SCHOLARSHIPS-DOCTORAL (PGS-D), $63,000
Natural Sciences and Engineering Research Council of Canada
national, academic

09/2015–**PRESENT**   CS ENTRANCE AWARD (A.K.A. GFP), $80,000 (reduced to $39,500 due to the funding limit)
Department of Computer Science, University of Manitoba
institutional, academic

09/2015–08/2016   UNIVERSITY OF MANITOBA GRADUATE FELLOWSHIP (UMGF), $18,000 PER YEAR
Faculty of Graduate Studies, University of Manitoba
institutional, academic [discontinued after receiving NSERC]

09/2012–08/2014   CS ENTRANCE AWARD (A.K.A. GUARANTEED FUNDING PACKAGE), $32,000
Computer Science, University of Manitoba
institutional, academic

2009, 2011   DEAN'S HONOUR LIST
Faculty of Science, University of Manitoba
institutional, academic

International competitions

05/2016   ROBOTART COMPETITION (Team 6th Place) using Picassnake, $5,000
RobotArt Organization (http://robotart.org)

08/2011   MARATHON (Team 2nd Place) using DARwIn
HuroCup – Humanoid Robot Competition
Federation of International Robot-soccer Association (FIRA) Competition, Kaohsiung, Taiwan

10/2010   CHAMPION AWARD (Team 1st Place)
Humanoid Robot Explorer Competition International Group
Micro-mouse & Robot Contest, Southern Taiwan University, TaiNan, Taiwan

Student Volunteering Awards

03/2015	HRI 2015	$650
08/2013	ROMAN 2013	$450

Travel Awards/Supports

08/2017	ROMAN 2017	$1000	Faculty of Graduate Studies, University of Manitoba
08/2017	ROMAN 2017	$700	Computer Science & Faculty of Science, University of Manitoba
08/2017	ROMAN 2017	$750	Graduate Student Association, University of Manitoba
03/2017	HRI 2017	$700	Computer Science & Faculty of Science, University of Manitoba
10/2015	HAI 2015	$1000	Faculty of Graduate Studies, University of Manitoba
10/2015	HAI 2015	$700	Computer Science & Faculty of Science, University of Manitoba
10/2015	HAI 2015	$705.92	Graduate Student Association, University of Manitoba
03/2015	HRI 2015	$750	Faculty of Graduate Studies, University of Manitoba
03/2015	HRI 2015	$700	Computer Science & Faculty of Science, University of Manitoba
03/2015	HRI 2015	$392.69	Graduate Student Association, University of Manitoba
09/2014	HIS 2014	$700	Computer Science & Faculty of Science, University of Manitoba
09/2014	HIS 2014	$650	Research Institute of Electrical Communication, Tohoku University
08/2013	ROMAN 2013	$700	Computer Science & Faculty of Science, University of Manitoba
08/2013	ROMAN 2013	$325	Graduate Student Association, University of Manitoba
05/2013	GI 2013	$500	Computer Science & Faculty of Science, University of Manitoba

ACADEMIC SERVICE

Conference Chair	Student Volunteer co-chair at *Human-Robot Interaction* (HRI 2017)
	Web chair at *Next Generation Human-Agent Interaction* (NGHAI 2016, 2017)
	Human-Agent Interaction Workshop
Paper Review	Human-Robot Interaction (HRI 2016, 2017, 2018, 2019)
	Robots and Human Interactive Communications (RO-MAN 2015, 2016, 2017, 2018)
	Human Factors in Computing Systems (CHI 2017)
	Human-Agent Interaction (HAI 2017, 2018)
	Graphics Interface (GI 2015)
	Advances in Computer Entertainment Technology (ACE 2017)
	Tangible Embedded and Embodied Interaction (TEI 2016, 2019)
	3D User Interfaces (3DUI 2017)
	Spatial User Interaction (SUI 2014, 2016)
Outreach Staff	"Picassnake: robot performance art," *Science Rendezvous*, 2016, Manitoba, Canada.
Tech. Consultant	Seema Goel. "To Move As One," *Art Gallery of Southwestern Manitoba*, 2016. Brandon, Manitoba, Canada
Media Attention	Stela H. Seo. "Would you feel sorry for a simulated robot? Study shows people empathize more with the real thing," *Robohub (http://robohub.org)*, 2015.

LANGUAGES

Korean	native
English	fluent conversational, reading, and writing
Japanese	fluent conversational, advanced reading, and intermediate writing

PERSONAL

interest in developing programs, video games, Japanese animations, building a plastic model, photography, Rubik's cubes, puzzles, Sudoku, learning instruments (harmonica, guitar, piano)

Winnipeg, Manitoba, Canada. (October 30, 2018)