Austin Kothig

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Education

2021 — Present **PhD in Systems Design Engineering**, University of Waterloo.
Supervisor: Dr. Kerstin Dautenhahn
Received the Engineering Excellence Fellowship (PhD).

2019 — 2021 **MASc in Systems Design Engineering**, University of Waterloo, *GPA - 89.25%*.
Thesis: "Accessible Integration of Physiological Adaptation in Human-Robot Interaction". ✆
Supervisor: Dr. Kerstin Dautenhahn
Received a Microsoft AI for Social Good research grant.

2014 — 2019 **BSc in Computer Science**, University of Lethbridge.
Graduated with Co-operative Education
Exchange term at the Italian Institute of Technology (Genoa, Italy)
Received funding from NSERC USRA, Mitacs Globalink, and Chinook awards for research projects.

Publications

2021 Kothig A, Muñoz J, Akgun SA, Aroyo AM, Dautenhahn K. "Connecting humans and robots using physiological signals – closing-the-loop in HRI". In IEEE International Conference on Robot and Human Interactive Communication '30. 2021 (RO-MAN). ✆

2021 Aroyo AM, Pasquali D, Kothig A, Rea F, Sandini G, Sciutti A. "Expectations vs. Reality: Unreliability and transparency in a treasure hunt game with iCub". IEEE Robotics and Automation Letters. 2021 (RAL). ✆

2020 Rea F, Kothig A, Grasse L, Tata M. "Speech envelope dynamics for noise-robust auditory scene analysis in robotics". International Journal of Humanoid Robotics (IJHR). ✆

2020 Kothig A, Muñoz J, Mahdi H, Aroyo AM, Dautenhahn K. "HRI Physio Lib: A software framework to support the integration of physiological adaptation in HRI". In International Conference on Social Robotics '12. 2020 (ICSR). ✆

2020 Aroyo AM, Pasquali D, Kothig A, Rea F, Sandini G, Sciutti A. "Perceived differences between on-line and real robotic failures". In Proceedings of the SCRITA Workshop on Trust, Acceptance and Social Cues in Human-Robot Interaction '3. 2020 (RO-MAN). ✆

2019 Kothig A, Ilievski M, Grasse L, Rea F, Tata M. "A Bayesian system for noise-robust binaural sound localisation for humanoid robots". In IEEE International Symposium on Robotic and Sensors Environments '13. 2019 (ROSE). ✆

Academic Service

Associate Chair on the Program Committee.

2020 ACM Annual Conference on Human Factors in Computing Systems (CHI-LBW)

Reviewer.

2021 IEEE International Conf. on Robot & Human Interactive Communication (RO-MAN)

2020 Springer International Conference on Social Robotics (ICSR)

▬▬ Technical Skills

Languages:	C/C++, Python, MATLAB, SQL, Android/Java, Bash, LaTeX
Technologies:	ROS, YARP, PyTorch, CUDA, OpenCV, SQLite, Git, Docker
OS:	Linux, Windows

▬▬ Work Experience

2019 — Present **Research Assistant**, University of Waterloo, Canada.
Supervisor: Dr. Kerstin Dautenhahn; Social and Intelligent Robotics Research Laboratory
- Embodied Social Mechanisms for Improved Human-Robot Interaction.
- Accessible Integration of Physiological Adaptation in Human-Robot Interaction.

Teaching Assistant, University of Waterloo, Canada.

Fall 2021	SYDE 161:	Introduction to Design
Winter 2021	ECE 108:	Discrete Mathematics and Logic
Fall 2020	SYDE 113:	Matrices and Linear Systems
Winter 2020	SYDE 223:	Data Structures and Algorithms

- Lead weekly tutorials; assisted during lab; marking for assignments, quizzes, and exams.

Fall 2018 **Visiting Researcher**, Italian Institute of Technology, Italy.
Supervisor: Dr. Francesco Rea; Robotics, Brain and Cognitive Sciences Lab
- Development of a speech-specific method of auditory perception for the iCub robot.

2017 — 2019 **Research Assistant**, University of Lethbridge, Canada.
Supervisor: Dr. Matthew Tata; Cognitive Robotics Lab
- Development of biologically inspired computational models for auditory localization.

2016 — 2018 **Information Technology Analyst**, Alberta Health Services, Canada.
Team Lead: Jodi Deering; Meditech Build Team
- Standardization and security auditing in the electronic medical record database Meditech.

▬▬ Awards and Honors

2021	Engineering Excellence Fellowship - PhD (EEF-D), $120k, (faculty, research)
2021	Engineering Dean's Entrance Award (PhD), $5k, (faculty, academic)
2020	Microsoft AI for Social Good Research Grant, $25k, (institutional, research)
2019	Engineering Dean's Entrance Award (MASc), $5k, (faculty, academic)
2019	Mathematics Domestic Masters Scholarship, $5k, (faculty, academic, *offered*)
2019	NSERC Undergraduate Student Research Award (USRA), $8.5k (national, research)
2018	Mitacs Globalink Research Award, $6k (national, research)
2018	Chinook Summer Research Award, $7.9k (institutional, research)

▬▬ Volunteer and Leadership Experience

2020 — 2021 **GSA Councilor**, Department of Systems Design Engineering, University of Waterloo.
- Attended regular UWaterloo Graduate Student Association (GSA) council meetings.
- Organized affairs of the SYDE-GSA, including coordinating the executive community, organizing and running online social events for SYDE graduate students.
- Administrate a SYDE Graduate student community Discord server.

Public Speaking.

2021	Canadian Graduate Engineering Consortium, Student Panelist.
2021	UW Engineering, Incoming Research-based Graduate Student Webinar, Student Panelist.