

Jessy Ceha

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Education

Ph.D. in Computer Science (Human-Computer Interaction)

University of Waterloo

2017 – Present

Waterloo, ON, Canada

- Supervised by Prof. Edith Law (School of Computer Science)
- Expected graduation: December 2021
- Thesis: *Evaluating Interaction Strategies for Pedagogical Conversational Agents*

M.Sc. in Human-Machine Interaction, cum laude

University of Groningen (RUG)

2014 – 2016

Groningen, the Netherlands

- Supervised by Prof. Marieke van Vugt (Institute of A.I. & Cognitive Engineering)
- Thesis: *Investigation into the Enhancement of Voice Perception: With Simulations of Cochlear Implants and Bimodal Hearing*

Honours Master in High Tech Systems & Materials (HTSM)

University of Groningen (RUG)

2014 – 2016

Groningen, the Netherlands

- A highly selective program geared toward exceptional MSc students involving multidisciplinary collaboration with industry partners for product development

B.Sc. in Cognitive Systems, with Distinction

University of British Columbia

2009 – 2014

Vancouver, BC, Canada

- Specialization: Cognition & Brain

Experience

Research Assistant

School of Computer Science, University of Waterloo

2017 – Present

Waterloo, ON, Canada

- Working on various projects focused on enhancing learning outcomes with social A.I. agents. Resulted in publications [P1], [P2], [P4], [P5], and work-in-progress [W1].

Research Assistant

Dept. of Audiology, University Medical Centre & Dept. of Experimental Psychology, RUG

2015 – 2016

Groningen, the Netherlands

- Involved psycho-acoustic experiments with simulations of bimodal hearing [P6] and development of an EEG neurofeedback system for improving auditory speech perception.

Research Intern

Philips

2014 – 2016

Drachten, the Netherlands

- Worked with the Philips Consumer Lifestyle division to conduct technical research for product development. This involved fabrication via 3D printing, printed circuit boards, followed by user studies on developed systems.

Research Assistant

Institute of A.I. and Cognitive Engineering, RUG

2014 – 2016

Groningen, the Netherlands

- Conducted research on cognitive and user modelling, using: EEG, cognitive architectures, and pupil dilation.

Peer Reviewed Publications

*** Note on conference papers: in Human-Computer Interaction, these are the preferred publication venues, being timelier and having the greatest impact. Top-tier conferences require rigorous multi-stage review of manuscripts for archival proceedings.

[P1] Ceha, J., Lee, K. J., Nilsen, L., Goh, J., and Law, E. (2021). *Can a Humorous Conversational Agent Enhance Learning Experience and Outcomes?* In Proceedings of CHI Conference on Human Factors in Computing Systems (CHI '21). ACM, New York, NY, USA, Article 685, 1–14. DOI: 10.1145/3411764.3445068.
Best Paper Honorable Mention (Top 5% of submissions).

[P2] Appriou, A., Ceha, J., Pramij, S., Dutartre, D., Law, E., Oudeyer, P-Y., and Lotte, F. (2020). *Towards measuring states of epistemic curiosity through electroencephalographic signals.* 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), 2020, pp. 4006-4011. DOI: 10.1109/SMC42975.2020.9283108.

- [P3] Henderson, J., **Ceha, J.**, and Lank, E. (2020). *STAT: Subtle Typing Around the Thigh for Head-Mounted Displays*. In 22nd International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '20). ACM, New York, NY, USA, Article 27, 1–11. DOI: 10.1145/3379503.3403549.
- [P4] Law, E., Ravari, P. B., Chhibber, N., Kulić, D., Lin, S., Pantasdo, K. D., **Ceha, J.**, Suh, S., and Dillen, N. (2020). *Curiosity Notebook: A Platform for Learning by Teaching Conversational Agents*. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI EA '20). ACM, New York, NY, USA, 1–9. DOI: 10.1145/3334480.3382783
- [P5] **Ceha, J.**, Chibberr, N., Goh, J., McDonald, C., Oudeyer, P-Y., Kulić, D., and Law, E. (2019). *Expression of Curiosity in Social Robots: Design, Perception, and Effects on Behaviour*. In Proceedings of CHI Conference on Human Factors in Computing Systems (CHI '19), May 4–9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA, 11 Pages. DOI: 10.1145/3290605.3300636.
- [P6] Başkent, D., Luckmann, A., **Ceha, J.**, Gaudrain, E., and Tamati, T. N. (2018). *The discrimination of voice cues in simulations of bimodal electro-acoustic cochlear-implant hearing*. The Journal of the Acoustical Society of America, 143(4), EL292. DOI: 10.1145/10.1121/1.5034171

Works In Preparation

- [W1] **Ceha, J.**, Law, E., Kulić, D., Oudeyer, P-Y., and Roy, D. (2021). *Identifying Functions and Behaviours of Social Robots for In-Class Learning Activities: Teachers' Perspective*. (Under review).

Awards

Natural Sciences and Engineering Research Council of Canada (NSERC) PGS D University of Waterloo	2019 – 2021 Waterloo, ON, Canada
<ul style="list-style-type: none"> Awarded to high-calibre scholars who are engaged in an eligible doctoral program in the natural sciences or engineering on a competitive basis. Valued at \$42 000 CAD. 	
University of Waterloo President's Graduate Scholarship (PGS) University of Waterloo	2019 – 2021 Waterloo, ON, Canada
<ul style="list-style-type: none"> Provided to outstanding graduate students who hold certain major federally and provincially funded competition-based scholarships. Valued at \$10 000 CAD annually. 	
Math Domestic Graduate Student Award University of Waterloo	2017 – Present Waterloo, ON, Canada
<ul style="list-style-type: none"> Awarded to incoming Canadian graduate students. Valued at \$6 000 annually. 	
University of Waterloo Provost Doctoral Entrance Award for Women University of Waterloo	2017 Waterloo, ON, Canada
<ul style="list-style-type: none"> Awarded by the Faculty of Mathematics to outstanding female PhD students on a competitive basis. Valued at \$5 000 CAD. 	
Avril McDonald Award University of Groningen	2016 Groningen, the Netherlands
<ul style="list-style-type: none"> Awarded by the Rosalind Franklin Fellows of the University of Groningen on a competitive basis each year to 3-4 students to encourage promising female scientists to pursue an academic career. Valued at \$1 000 EUR. 	

Teaching Experience

CS 449/649 – Human-Computer Interaction – TA University of Waterloo	2020 Waterloo, ON, Canada
CS 349 – Introduction to User Interfaces – TA/Instructional Apprentice University of Waterloo	2018, 2020 Waterloo, ON, Canada
CS 106 – Introduction to Computer Programming 2 – TA/Instructional Apprentice University of Waterloo	2018, 2021 Waterloo, ON, Canada
CS 105 – Introduction to Computer Programming 1 – TA/Instructional Apprentice University of Waterloo	2017, 2018, 2019 Waterloo, ON, Canada

Technical Skills

Languages

R, Python, Java, MATLAB, Javascript, HTML/CSS, OpenViBE, Arduino, ROS

User Research

Research design

Lab & field studies with adults and children

Interview design & execution

Focus groups

Questionnaires/surveys

Usability studies

Participatory & Co-design

Human-physiology measurement (EEG, EMG, pupil dilation, eye tracking)

Data analysis/statistics

Technical writing

Service

Peer Reviewer

2017 – Present

ACM venues (CHI, HRI, IDC), IEEE venues (HRI, ICDL)

CHI Conference Student Volunteer

May 2019

ACM SIGCHI

Glasgow, Scotland

Educational Assistant

May 2019

Prueter Public School

Kitchener, ON, Canada

Workshop Chair – Human-Robot Interaction

July 2018

SHAD Canada

Waterloo, ON, Canada

Workshop Instructor – UX Design and Research

June 2018

GIRLsmarts4tech

Waterloo, ON, Canada