

Jessy Ceha

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Education

Ph.D. in 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 Communication (Computational Cognitive Science), 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 social A.I. agents (social robots; chatbots; voice assistants). 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 for cochlear implant wearers.

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). [Acceptance rate: 25.7%]

- [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. [Acceptance rate: 23.8%]
- [P6] Bařkent, 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
• 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
• 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
• 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
• 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
• 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 <i>University of Waterloo</i>	2020 <i>Waterloo, ON, Canada</i>
CS 349 – Introduction to User Interfaces – TA/Instructional Apprentice <i>University of Waterloo</i>	2018, 2020 <i>Waterloo, ON, Canada</i>
CS 106 – Introduction to Computer Programming 2 – TA/Instructional Apprentice <i>University of Waterloo</i>	2018, 2021 <i>Waterloo, ON, Canada</i>
CS 105 – Introduction to Computer Programming 1 – TA/Instructional Apprentice <i>University of Waterloo</i>	2017, 2018, 2019 <i>Waterloo, ON, Canada</i>

Technical Skills

Languages

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

User Research

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

Psychometric assessments

Lab & field studies with adults and children

Interview design & execution

Focus groups

Questionnaires/surveys

Usability testing

Participatory & Co-design

Data analysis/statistics

Technical writing

Service

Peer Reviewer <i>ACM venues(CHI, HRI, IDC), IEEE venues (HRI, ICDL)</i>	2017 – Present
CHI Conference Student Volunteer <i>ACM SIGCHI</i>	May 2019 <i>Glasgow, Scotland</i>
Educational Assistant <i>Prueter Public School</i>	May 2019 <i>Kitchener, ON, Canada</i>
Workshop Chair – Human-Robot Interaction <i>SHAD Canada</i>	July 2018 <i>Waterloo, ON, Canada</i>
Workshop Instructor – UX Design and Research <i>GIRLsmarts4tech</i>	June 2018 <i>Waterloo, ON, Canada</i>