

# Jessy Ceha

jceha@uwaterloo.ca | jessyceha.com | Nationalities: Canadian, Dutch

## 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 Interaction (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.

### 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

<b>Natural Sciences and Engineering Research Council of Canada (NSERC) PGS D</b> 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.	
<b>University of Waterloo President's Graduate Scholarship (PGS)</b> 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.	
<b>Math Domestic Graduate Student Award</b> University of Waterloo	2017 – Present Waterloo, ON, Canada
• Awarded to incoming Canadian graduate students. Valued at \$6 000 annually.	
<b>University of Waterloo Provost Doctoral Entrance Award for Women</b> 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.	
<b>Avril McDonald Award</b> 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

---

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

---

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