

Jessy Ceha

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Education

Ph.D. in Human-Computer Interaction

2021

University of Waterloo

Waterloo, ON, Canada

Supervisor: Prof. Edith Law

Thesis: Affective Expressions in Conversational Agents for Learning Environments:
Effects of curiosity, humour, and expressive auditory gestures

M.Sc. in Computational Cognitive Science

2016

University of Groningen (RUG)

Groningen, the Netherlands

Supervisor: Prof. Marieke van Vugt

Thesis: Investigation into the Enhancement of Voice Perception:
With simulations of cochlear implants and bimodal hearing

B.Sc. in Cognitive Systems

2014

University of British Columbia

Vancouver, BC, Canada

Experience

Doctoral Researcher

2017 – 2021

School of Computer Science, University of Waterloo

Waterloo, ON, Canada

Various projects focused on conversational agents (robots; chatbots; voice assistants).
Resulted in publications [P1], [P2], [P3], [P4], [P6], [P7].

Teaching Assistant & Instructional Apprentice

2017 – 2021

University of Waterloo

Waterloo, ON, Canada

CS 449/649 Human-Computer Interaction	2020, 2021
CS 349 Introduction to User Interfaces	2018, 2020
CS 106 Introduction to Computer Programming 2	2018, 2021
CS 105 Introduction to Computer Programming 1	2017, 2018, 2019

Research Assistant (M.Sc.)

2015 – 2016

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

Groningen, the Netherlands

Psycho-acoustic experiments with simulations of bimodal hearing [P8] and EEG
neurofeedback for improving auditory speech perception for cochlear implant wearers.

Research Intern

2014 – 2016

Philips

Drachten, the Netherlands

Alongside Master's degree, worked with the Philips Consumer Lifestyle division to
conduct product development and user research.

Skills

Technical

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

Research

Applied experience with adults & children in clinical, field, & lab settings

Study design (incl. literature review, ethics, data analysis, & manuscript writing)

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

Qualitative & Quantitative data collection & analysis

Cognitive & User modeling

Refereed 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.** and Law, E. (2022).
Expressive Auditory Gestures in a Voice-Based Pedagogical Agent.
To appear in Proceedings of CHI Conference on Human Factors in Computing Systems (CHI '22).
- [P2] **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.
International Journal of Social Robotics. Springer Nature B.V., 1-15.
- [P3] **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. **Best Paper Honorable Mention (Top 5% of submissions).**
- [P4] 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.
- [P5] 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.
- [P6] 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 CHI Conference on Human Factors in Computing Systems (CHI EA '20). ACM, New York, NY, USA, 1-9.
- [P7] **Ceha, J.**, Chhibber, 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.
- [P8] Baškent, 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.

Non-Refereed Publications

- [N1] **Ceha, J.** (2021). *Affective Expressions in Conversational Agents for Learning Environments: Effects of curiosity, humour, and expressive auditory gestures.* Ph.D. Dissertation, University of Waterloo, Canada.
- [N2] Law, E., Nilsen, E., Lee, K.J., Chauhan, A., **Ceha, J.**, Baghaei, P., Debbane, A., and Yang, K. (2020). *Learning and Teaching with Conversational Agents.* In CHI 2020 Workshop on Grand Challenges in Conversational UI.
- [N3] **Ceha, J.** (2016). *Investigation into the Enhancement of Voice Perception: with simulations of cochlear implants and bimodal hearing.* Master's Thesis, University of Groningen, the Netherlands.

Awards

NSERC Postgraduate Scholarship-Doctoral <i>University of Waterloo</i> Awarded by the Natural Sciences and Engineering Research Council of Canada (NSERC) to high-calibre scholars on a competitive basis. Valued at \$42 000 CAD.	2019 – 2021
University of Waterloo President's Graduate Scholarship <i>University of Waterloo</i> Provided to outstanding graduate students who hold certain major federally and provincially funded competition-based scholarships. Valued at \$10 000 CAD annually.	2019 – 2021
Math Domestic Graduate Student Award <i>University of Waterloo</i> Awarded to incoming Canadian graduate students. Valued at \$6 000 CAD annually.	2017 – 2021
University of Waterloo Provost Doctoral Entrance Award for Women <i>University of Waterloo</i> Awarded by the Faculty of Mathematics to outstanding female Ph.D. students on a competitive basis. Valued at \$5 000 CAD.	2017
Avril McDonald Award <i>RUG</i> 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.	2016

Service

Peer Reviewer <i>ACM venues (CHI, HRI, IDC), IEEE venues (HRI, ICDL), MDPI Journal Informatics</i>	2017 – Present
CHI Conference Student Volunteer <i>ACM SIGCHI</i>	May 2019 <i>Glasgow, Scotland</i>
Educational Assistant <i>Prueter Public School</i>	March 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>