JESSY CEHA · CV

CONTACT
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CITIZENSHIP
Canadian, Dutch

LANGUAGES
English (native), Dutch (full professional), German (limited working)

SUMMARY

Highly adaptable and motivated, having completed projects in both academia and industry—spanning numerous domains, countries, and departments. Experienced in conducting research in the lab, medical centers, and in-the-wild, as well as writing, publishing, and presenting at various venues. Knowledgeable in the areas of human-computer/robot interaction, human factors, and neuroscience, with experience in UX assessment, human physiology measurement, and psychometric testing. Passionate about interdisciplinary research; particularly, psychology, neuroscience, and computer science.

EDUCATION

Ph.D. Computer Science 2017 - present
University of Waterloo, Waterloo, ON, Canada
Specialization: Human-Computer Interaction (HCI)
Advisor: Dr. Edith Law (School of Computer Science)
Thesis Focus: *Interaction Strategies for Pedagogical Conversational Agents*

M.Sc. Human-Machine Communication, *cum laude* 2014 - 2016
University of Groningen, Groningen, the Netherlands
Specialization: Cognitive Engineering
Advisor: Dr. 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 High Tech Systems & Materials 2014 - 2016
University of Groningen, Groningen, the Netherlands
A 1.5 year program followed alongside the regular Master's

B.Sc. Cognitive Systems, *with Distinction* 2009 - 2014
University of British Columbia, Vancouver, BC, Canada
Specialization: Cognition & Brain

ACADEMIC CONTRIBUTIONS

Henderson, J., **Ceha, J.**, and Lank, E. (2020). STAT: Subtle Typing Around the Thigh for Head-Mounted Displays. [under review MobileHCI2020]

Appriou, A., **Ceha, J.**, Pramij, S., Law, E., Oudeyer, P-Y., Dutartre, D., and Lotte, F. (2020). Towards measuring states of epistemic curiosity through electroencephalographic signals. [under review CogSci 2020]

Law, E., Ravari, P. B., Chhibber, N., Kulic, D., Lin, S. , Pantasdo, K. D., **Ceha, J.**, Suh, S., and Dillen, N. (2020). Curiosity Notebook: A Platform for Learning by Teaching Conversational Agents. *CHI '20 Extended Abstracts, April 25-30, 2020, Honolulu, HI, USA.*

Ceha, J., Chibberr, N., Goh, J., McDonald, C., Oudeyer, P-Y., Kulic, D., and Law, E. (2019). Expression of Curiosity in Social Robots: Design, Perception, and Effects on Behaviour. In *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019) May 4-9, 2019, Glasgow, Scotland, UK.* ACM, New York, NY, USA, 12 pages.

Baskent, 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)*, pages 292-297.

Ceha, J. (2016). Investigation into the Enhancement of Voice Perception: with simulations of cochlear implants and bimodal hearing. (Master's thesis)

Ceha, J., Buwalda, T., Taatgen, N., Borst, J., and van Vugt, M. (2015). Theta-band phase locking after attentional blink training. Poster presentation. *The 15th NVP Winter Conference on Cognition, Brain, and Behaviour. The Netherlands.*

Research Projects

Pedagogical Agents/Social Robots 2017 - present
HCI Lab, University of Waterloo

- Investigating curiosity-driven learning with social (NAO) robots
- Co-designing pedagogical conversational agents with teachers and students

Speech Perception with Cochlear Implants 2015 - 2016
Dept. of Audiology, University Medical Centre Groningen

- Conducted psychoacoustic experiments with simulations of bimodal hearing

Dept. of Experimental Psychology, University of Groningen

- Developed an EEG neurofeedback system for improving auditory speech perception

Cognitive and User Modelling 2014 - 2016
Institute of A.I. and Cognitive Engineering, University of Groningen

- EEG study on theta oscillation phase-locking after attentional blink (AB) training
- Built a model of human time perception based on Adaptive Control of Thought-Rational (ACT-R) cognitive architecture
- Developed and tested an interruption management system based on pupil dilation

Academic Experience

User Research
Lab & field studies with adults and children

Designing and conducting interviews, focus groups, questionnaires/surveys

Paper prototyping, usability testing, think-aloud, cognitive walkthroughs

Human physiology measurement

- Eye-Tracking/Pupil Dilation
- EEG, Electromyography (EMG) & Brain-Computer Interfaces (BCIs)

Transcription of audio and video data

Analysis of quantitative and qualitative results

User interface evaluation

Programming and Statistics
MATLAB, Python, HTML, CSS, Processing, OpenViBE, R, Arduino, ROS

Teaching
TA & IA: CS 105,106,349,449, University of Waterloo 2017 - present

Volunteer Educational Assistant, Prueter Public School, Kitchener Feb. - April 2019

Led a multi-day workshop on Human-Robot Interaction at Shad Canada, Waterloo July 2018

Instructor for UX design and research at GIRLsmarts4tech, Waterloo June 2018

Elementary school math tutor, Learning Buddies Network, Vancouver Jan. - April 2014

Industry Experience

Consumer Electronics Internship, Philips, Drachten, the Netherlands — 2014 - 2016

- As part of the *Honours Master*, manufactured, tested, and finalized a solution to a technical challenge presented by Philips Consumer Lifestyle
- PCB basics; 3D printing

Honours and Awards

Natural Sciences and Engineering Research Council of Canada (NSERC) Postgraduate Scholarship-Doctoral (PGS D)	May 2019
University of Waterloo President's Graduate Scholarship (PGS)	May 2019
University of Waterloo Provost Doctoral Entrance Award for Women	Sept. 2017
University of Waterloo Entrance Scholarship	Sept. 2017
Avril McDonald Award	August 2016