JESSY CEHA · CV

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http://jessyceha.com

CITIZENSHIP

Canadian, Dutch

Languages

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

SUMMARY

Highly adaptable, motivated, and completed projects in both academia and industry—spanning numerous domains, departments, and countries. 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 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. In *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2020) Toronto, Canada, Oct 11-14, 2020.*

Henderson, J., Ceha, J., and Lank, E. (2020). STAT: Subtle Typing Around the Thigh for Head-Mounted Displays. In *Proceedings of the 22nd International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '20)*.

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

- Enhancing learning outcomes with social AI agents
- Co-designing AI 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
- Modeled human time perception using Adaptive Control of Thought-Rational (ACT-R) cognitive architecture
- Pupil dilation based interruption management system

ACADEMIC EXPERIENCE

Programming and Statistics

MATLAB, Python, HTML, CSS, Processing, OpenViBE, R, Arduino, ROS

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

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

Reviewing

CHI 2019 / 2020 / 2021

 $IDC\ 2020$

International Journal of Child-Computer Interaction 2020

Industry Experience

Consumer Electronics Internship, Philips, Drachten, the Netherlands

2014 - 2016

- \bullet 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