JESSY CEHA · CV

Contact jceha@uwaterloo.ca

+1-519-580-6977

http://jessyceha.com

CITIZENSHIP

Canadian, Dutch

LANGUAGES

English (native), Dutch (full professional)

EDUCATION

Ph.D. Computer Science

2017 - present

University of 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, 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, 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, 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 *Proc. IEEE Intl. Conf. on Systems, Man, and Cybernetics (IEEE SMC 2020)*.

Henderson, J., Ceha, J., and Lank, E. (2020). STAT: Subtle Typing Around the Thigh for Head-Mounted Displays. In *Proc. 22nd Intl. Conf. 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. In *CHI '20 Extended Abstracts*.

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 Conf. on Human Factors in Computing Systems Proceedings* (*CHI 2019*). 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., 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

Speech Perception with Cochlear Implants

2015 - 2016

Dept. of Audiology, University Medical Centre Groningen

• Psychoacoustic experiments with simulations of bimodal hearing

Dept. of Experimental Psychology, University of Groningen

• 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

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

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

Industry Experience Consumer Electronics Internship, Philips, Drachten, the Netherlands

2014 - 2016

Sept. 2017

- 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; user studies

Honours and Awards Natural Sciences and Engineering Research Council of Canada (NSERC)

May 2019

Postgraduate Scholarship-Doctoral (PGS D)

Awarded to high-calibre scholars who are engaged in an eligible doctoral program in the natural sciences or engineering on a competitive basis (\$42,000)

University of Waterloo President's Graduate Scholarship (PGS)

May 2019

Provided to outstanding graduate students who hold certain major federally

and provincially funded competition-based scholarships (\$10,000 annually)
University of Waterloo Provost Doctoral Entrance Award for Women

Awarded by the Faculty of Mathematics to outstanding female PhD students on a competitive basis (\$5,000)

Avril McDonald Award Aug. 2016

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 (1,000 EUR)