JESSICA IP

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RESEARCH INTERESTS

My research interests lie in the intersection of human-computer interaction, information visualization, and perceptual processing. I aspire to understand the perceptual mechanisms underlying decision-making and how they inspire the design of new information systems.

EDUCATION

University of British Columbia (UBC) — Vancouver, CAN

B.A. in Cognitive Systems: Cognition and the Brain — 09/2015 – 05/2020

Senior Project: *An Interactive Haptic Device Visualization Tool for Device Creators and Repurposers*

Advisor: Prof. Karon E. MacLean

RESEARCH AND WORK EXPERIENCE

Visual Cognition Lab, UBC — Vancouver, CAN

Project Leader and Research Assistant with Prof. Ronald A. Rensink — 09/2016 – Present

Investigating the human perception of correlation in data visualizations with applied research methods from psychophysics.

Topics: Information Visualization, Perceptual Processing, Psychophysics, Vision Science

Sensory Perception and Interaction Research Group, UBC — Vancouver, CAN

Research Assistant with Prof. Karon E. MacLean and Dr. Hasti Seifi — 01/2018 – Present

Conducted a qualitative study on the design workflows of novice and expert haptic device creators, and application designers. This work resulted in a CHI '19 publication. In 01/2019, I was awarded an NSERC USRA to co-lead a crowdsourcing study on Haptipedia.

Topics: Human-Computer Interaction, Qualitative Analysis, Haptics

Laboratory for Computational Intelligence, UBC — Vancouver, CAN

Research Assistant with Prof. Giuseppe Carenini and Emily Hindalon**g** — 09/2017 – 04/2018

Designed a usability test for the ValueCharts web application and integrated instructions into the web application to guide a user through the workflow.

Topics: Web-based Interactive Visualizations, Decision-Making

Emerging Media Lab, UBC — Vancouver, CAN

Academic Assistant with Saeed Dyanatkar — 11/2017 – 04/2018

Created and facilitated Virtual Reality and Brain-Computer Interface demos and workshops.

Technology: Virtual Reality (HTC Vive™), Brain-Computer Interface (Muse™ Headband), Google Cardboard, WebVR, Unity3D, Blender

TEACHING EXPERIENCE

Teaching Assistant, University of British Columbia   Vancouver, CAN
COGS 303: Research Methods in Cognitive Systems   09/2018 – 12/2018
Graded weekly written assignments and final critique papers for
39 undergraduate students. Hosted weekly office hours and
exam review sessions.

Directed Studies Supervisor, University of British Columbia   Vancouver, CAN
COGS 402: Research in Cognitive Systems   01/2020 – 04/2020
Supervised Nicholas Chin at the UBC Visual Cognition Lab for his
senior undergraduate project.

PUBLICATIONS

PEER-REVIEWED PUBLICATIONS

[1] Seifi, H., Fazlollahi, F., Oppermann, M., Sastrillo, J. A., **Ip, J.**, Agrawal, A., Park, G., Kuchenbecker, K. J., MacLean, K. E. Haptipedia: Accelerating Haptic Device Discovery to Support Interaction & Engineering Design. *In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), Glasgow, Scotland, May 2019.*

NON-REFEREED PUBLICATIONS

[1] Seifi, H., **Ip, J.**, Agrawal, A., Kuchenbecker, K.J., MacLean, K.E. 2019. Toward Expert-sourcing of a Haptic Device Repository. In Proceedings of ACM Conference (CHI'19). ACM, Glasgow, Scotland, England, 4 pages.

POSTER PRESENTATIONS AND TALKS

POSTER PRESENTATIONS

[2] **Ip, J.**, Tembo, T., Seifi, H., Fazlollahi, F., Oppermann, M., Sastrillo, J. A., Agrawal, A., Park, G., Kuchenbecker, K. J., MacLean, K. M. (2019). Haptipedia: A Haptic Device Library to Support Interaction and Engineering Design. DFP Design Showcase 2019. Vancouver, Canada.

[1] **Ip, J.**, Pertels, Y., Chai, W., Thongprasert, S. (2017). "Image Transitions: Visual Search in the Dynamic World." Multidisciplinary Undergraduate Research Conference. Vancouver, Canada.

TALKS

[1] **Ip, J.**, Pertels, Y., Chai, W., Thongprasert, S. (2017). Image Transitions: Visual Search in the Dynamic World. Oral presentation at the Psychology Undergraduate Research Conference. Vancouver, Canada.

RESEARCH GRANTS

Undergraduate Student Research Award, NSERC   2019