Jessica Ip

EDUCATION

University of British Columbia (UBC)

Vancouver, Canada

B.A. in Cognitive Systems, Cognition and the Brain

09/2015 - 05/2020

Graduation with First Class Standing

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

Advisors: Prof. Ronald A. Rensink and Prof. Karon E. MacLean

RESEARCH EXPERIENCE

Visual Cognition Lab, UBC Psychology

Vancouver, Canada

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. Studied feature and conjunction search and the role of attention in visual search. Led and managed a
team of undergraduate researchers for nine school terms.

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

Max Planck Institute for Intelligent Systems & UBC

Vancouver, Canada

Research Assistant with Prof. Karon E. MacLean and Dr. Hasti Seifi

04/2018 - 08/2019

Designed and conducted a user study on a novel haptic device library (Haptipedia), leading to a CHI '19 publication.
 Co-led a study on crowdsourcing incentives on Haptipedia.

Topics: Human-Computer Interaction, Haptics, Crowdsourcing

Sensory Perception & Interaction Lab, UBC Computer Science

Vancouver, Canada

Research Assistant with Prof. Karon E. MacLean

01/2018 - 04/2018

Explored low-DOF robot design and construction to investigate the display and recognition of emotion. Used low-cost
and rapid prototyping techniques to construct simple robotic behaviors using graphical and audio interfaces.

Topics: Robotics, Low-fidelity Prototyping

Laboratory for Computational Intelligence, UBC Computer Science

Vancouver, Canada 09/2017 - 04/2018

Research Assistant with Prof. Giuseppe Carenini

- Studied the multi-attribute utility theory (MAUT) and its employment in quantitative presentations of subjective preferences in decision-making models. Designed a usability test for the ValueCharts web application.

Topics: Web-based Interactive Visualizations, Multi-Attribute Utility Theory, Decision-Making

Moritz Lab, UBC Ophthalmology & Visual Sciences

Vancouver, Canada

Laboratory Intern with Prof. Orson Moritz

04/2014

Topics: Visual Science, Neuro-Ophthalmology, Retinitis Pigmentosa, Macular Degeneration

Publications

Peer-Reviewed Papers

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 Papers

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

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

Talks

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

RESEARCH GRANTS

Undergraduate Student Research Award, NSERC

2019

TEACHING EXPERIENCE

Directed Studies Supervisor at University of British Columbia

Spring 2020

Research in Cognitive Systems (COGS 402)

Workshop Instructor at UBC Visual Cognition Lab

Spring 2019

 $Workshop\ Series\ on\ Psychophysics\ Methods\ and\ Data\ Analysis$

Teaching Assistant at University of British Columbia

Fall 2018

Research Methods in Cognitive Systems (COGS 303)

WORK EXPERIENCE

Advesa Digital Solutions Inc.

Burnaby, Canada 06/2020 – Present

Technical Writer

Writing REST API and GUI documentation for e-commerce software.

Technology: Confluence, Postman, Swagger, JIRA

Emerging Media Lab, UBC

Vancouver, Canada 11/2017 – 04/2018

Academic Assistant

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

Technology: Virtual Reality (HTC ViveTM), Brain-Computer Interface (MuseTM Headband)

Volunteer Experience

Student Volunteer at ACM SIGGRAPH

08/2018

Volunteered as a docent for the CAVE project by the NYU Future Reality Lab.

Course Collaborator for Stanford Scholar

05/2016 - 08/2016

Helped produce and edit content for crowdsourced research talks.

${\bf Communications}\ {\bf Director}\ {\bf at}\ {\bf Social}\ {\bf Diversity}\ {\bf for}\ {\bf Children}\ {\bf Foundation}$

01/2014 - 07/2016

Served on the executive team of a charity that empowers children with disabilities.

TECHNICAL SKILLS

Languages: R, Java, C/C++, JavaScript, HTML/CSS, MATLAB

Toolkit & Environments: Excel, Git, Tableau, IntelliJ, MAXQDA, LATEX, Arduino, Unity3D, Blender (3D Modeling),

Photoshop

Research: Quantitative Analysis, Psychophysics, Diary Studies, User Interviews, Qualitative & Thematic Analysis, Data Collection (human subjects)