# Jessica Ip

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## Education

**University of British Columbia (UBC)** Vancouver, BC, CA
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, BC, CA
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, BC, CA
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, BC, CA
Research Volunteer 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, BC, CA
Research Assistant with Prof. Giuseppe Carenini 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, Multi-Attribute Utility Theory, Decision-Making

**Moritz Lab, UBC Ophthalmology & Visual Sciences** Vancouver, BC, CA
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.**, 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.

2. **Ip, J.**, Pertels, Y., Chai, W., Thongprasert, S. (2017). "Image Transitions: Visual Search in the Dynamic World." UBC 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 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, BC, Canada
Technical Writer 06/2020 – Present
Writing GUI and API documentation for e-commerce software.
*Technology:* Confluence, Postman, Swagger, JIRA

**Emerging Media Lab, UBC** Vancouver, BC, Canada
Academic Assistant 11/2017 – 04/2018
Created and facilitated Virtual Reality and Brain-Computer Interface demos and workshops.
*Technology:* Virtual Reality (HTC ViveTM), Brain-Computer Interface (MuseTM Headband)

## 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)