

Matthew Chun Curriculum Vitae

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Profile

I'm a person interested in "people things". That is, how do people perceive, use, and feel about the various mediums they interact with in their world? This curiosity led me to pursue an academic interest in Human Computer Interaction (HCI) in order to equip myself with the hard and soft skills needed to get at this question.

Education

University of British Columbia (UBC)
BA, Computer Science, Cognitive Systems (Cognition and the Brain), 2016
MSc, Computer Science, Human Computer Interaction (HCI), 2019
Sensory Perception and Interaction Lab (SPIN)

Programming

Java, C++, PHP, HTML, CSS, C#, JavaScript, Python, R

Software

Unity, OpenCV, Drupal, MATLAB, SPSS, GitHub, Adobe Photoshop, Adobe Premiere, Adobe Lightroom, Arduino, Audacity

Research Skills

Quantitative Analysis (eg. ANOVA, Linear Regression), Qualitative Analysis (eg. Thematic Analysis, User Interviews)

Work

Media Interface Researcher/Developer, NTT, 2014 to 2015 [Unity]

Researched time perception of simulated network delays in virtual reality panoramic video environments using Unity and the Oculus Rift. Findings were presented at a domestic Japanese conference called IEICE (The Institute of Electronics, Information, and Communication Engineers). Indexed at <https://www.ieice.org/ken/index/ieice-techrep-114-517-e.html>

Web Developer, Telus, 2013 [Unix, PHP]

Developed Unix scripts to improve server maintenance tasks eg. Collecting various server statuses. Also developed application in PHP and MySQL to automate troubleshooting of network issues.

High School Student Computer Science Camp Instructor, UBC, 2012 [Java]

Taught secondary school students concepts of video game development and robotics. Engaged students through team building activities and games.

Academic

Haptic Experience Design, UBC Computer Science, Master's Thesis, SPIN, 2016 to 2019 [Qualitative Analysis, R]

Investigated and systematically assessed design methodologies in the field of haptics (touch related technologies) in order to discover interdisciplinary methodological benefits.

Haptic Education Requirements Gathering, UBC Computer Science, Graduate Research Assistant, SPIN, 2018 [Qualitative Analysis]

Worked together with two secondary school students in identifying possible avenues for haptic (touch related technologies) education through focus groups with other secondary school students and design brainstorming.

Mobile Haptic Vibration Design, UBC Computer Science, Undergraduate Research Assistant, SPIN, 2015 [JavaScript]

Designed mobile haptic vibrations to validate viability of cheaper haptic devices in efficacy for information conveyance (eg. fitness, presentation time tracking, etc) in crowdsourced evaluations through Mechanical Turk. Publication accepted at CHI 2016, a top tier human computer interaction conference.

Haptic “Instagram”, UBC Computer Science, Undergraduate Research Assistant, SPIN, 2016 [CSS, HTML, Audacity]
Researched, developed and tested the emotional and pragmatic information qualities of vibrations for a speculative design of a user customizable vibration tuning interface for devices such as phones and smartwatches.

Haptic Web Prototyping Tool, UBC Computer Science, Undergraduate Research Assistant, SPIN, 2016 [JavaScript]
Assisted PhD student in developing quality of life features (eg. Save/load) for a haptic (touch related technologies) designer support tool called Macaron (<https://www.cs.ubc.ca/labs/spin/macaron>).

Graduate Courses

Information Visualization (CPSC 547), UBC Computer Science, 2017 [HTML, CSS, R]
In a team, helped design and develop an information visualization tool for making more informed dining decisions based on useful comparisons using the Yelp dataset.

Personalization Human Computer Interaction (CPSC 554M), UBC Computer Science, 2017 [Qualitative Analysis]
In a team project, researched current experiences of everyday users in file management practices with cloud services such as Google Drive and Dropbox. Based on findings, made recommendations for speculative redesign of such services.

Teaching

Human Computer Interaction Course Teaching Assistant (CPSC 344, 444), UBC, 2015 to 2017
Through workshops and in-person interactions, clarified core HCI concepts/methodology and provided student project guidance.

Grants

UBC Computer Science Merit Scholarship (Additional \$5000 stipend for 2 years)
Competitive award to attract and give strong applicants additional funding.

Publications

CHI 2016 (Conference on Human Factors in Computing Systems)
Schneider, O. S., Seifi, H., Kashani, S., Chun, M., & MacLean, K. E. (2016, May). HapTurk: crowdsourcing affective ratings of vibrotactile icons. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 3248-3260). ACM.

Eurohaptics (Conference on haptics and touch enabled computer applications)
Bucci, P., Cang, X. L., Chun, M., Marino, D., Schneider, O., Seifi, H., & MacLean, K. (2016). CuddleBits: an iterative prototyping platform for complex haptic display. *Eurohaptics Demonstration*.

Coding Challenges

World Haptics 2017 Student Innovation Challenge, Munich, 2017 [Processing, Arduino]
For a haptics (touch related technologies) conference, designed and developed a haptic education application designed to physicalize abstract electricity concepts.

Haptics Symposium 2016 Student Innovation Challenge, Philadelphia, 2016 [Python]
For a haptics (touch related technologies) conference, designed an affective vibration calming system for speculative automated car driving for situations where drivers must suddenly resume control of their vehicle.

iamagamer Video Game Hackathon, Vancouver, 2013 [Unity]
In a team, participated in a hackathon to create a video game combating female stereotypes. Role was to provide level design.

Community

Computer Science Graduate Student Social Czar, UBC, 2016 to 2018
Hosted and organized several graduate student social events ranging from dinners, karaoke, to hiking trips.

Designing For People Media Production, UBC, 2017 to 2019
Captured and processed media (photos, event videos) for UBC Interdisciplinary Graduate Design program called DFP (Designing For People). Examples of media can be seen at dfp.ubc.ca

Canada Learning Code Volunteer, UBC, 2018 [JavaScript, PHP, CSS, HTML]

Helped coach first time coders in developing a Chrome web extension.

Haptics Symposium 2016 Student Volunteer, Philadelphia, 2016

For a haptics (touch related technologies) conference, assisted in logistical duties such as sign-in coordination, providing directions and instructions to event attendees.

Microsoft Student Partner, UBC, 2013 to 2014

Organized events that promoted the usage of Microsoft Developer tools such as Visual Studio.

UBC Wine Tasting Club VP Internal, UBC, 2010 to 2014

Arranged liquor licensing, collaborated with other UBC clubs, and acted as secretary for answering emails, and sending event details.