

nathaniel hudson

613-265-2749 - me@nathanielh.com

Experience

Autodesk

User Interface Research

June 2016 – September 2016

Conducted an empirical research study examining the barriers youth face when learning complex 3D modelling software in both workshop and online environments, producing practical recommendations for the design of more usable products.

3D Modelling, Rapid Prototyping, Atlas.ti, HTML, CSS, Javascript

Carleton University

Technology Innovation Management Program

Web Design and Development

June 2011 – June 2015

Created online academic publishing system, entrepreneurial process management system.

Online at TIMProgram.ca, LTW-Women.ca and TIMReview.ca

Drupal, Wordpress, Bootstrap, Photoshop, PHP, MySQL, HTML, CSS, Javascript, jQuery

The Bytown Group

Web Design and Development

May 2013 – August 2013

Created interactive frontend and backend elements for internal and customer websites.

Online at BytownGroup.com, WetlandNetwork.ca and CampaignForCanadians.ca

Wordpress, PHP, MySQL, Photoshop, HTML, CSS, Javascript, jQuery

Nukoko

Volunteer Web Design and Development

July 2010 – September 2011

Created easy-to-maintain website and sponsorship portal for registered nonprofit.

Wordpress, PHP, MySQL, Photoshop, HTML, CSS, Javascript, jQuery

Nortel, now Avaya

Internship

July 2008 – August 2008

Designed assets for audio component of an immersive virtual collaboration product.

Online at AvayaLive.com/Engage/

Adobe Photoshop & Illustrator, 3D Modelling

Education

Master of Applied Science (MASC)

University of Waterloo, Faculty of Engineering

2014 – 2016

Thesis research used an HCI approach to examine the experiences and usability barriers faced by novice users of 3D modelling and printing, as well as the discussions that occur online around user-contributed 3D printable models. Additionally, I designed and developed a web-based novice-oriented 3D modelling package.

Three.js, Python, Flask, Bootstrap, Node.js, Jekyll, MySQL, HTML, CSS, Javascript, jQuery

Bachelor of Industrial Design, Minor in Business

Carleton University

2010 – 2014

For my fourth year project, I designed and built an all-in-one hybrid 3D printer/CNC router/plotter/vinyl cutter for use in educational environments to support design thinking education.

*Photoshop & Illustrator, Solidworks, Rapid Prototyping, Electronics Prototyping
With High Distinction. 10.77 CGPA (A level).*

Conference Publications

CHI 2016

Hudson, N., Alcock, C., and Chilana, P. (2016) Understanding Newcomers to 3D Printing: Motivations, Workflows, and Barriers of Casual Makers. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16)*.

GROUP 2016

Alcock, C., Hudson, N., Chilana, P. (2016) Barriers to Using, Customizing, and Printing 3D Designs on Thingiverse. *Proceedings of the ACM Conference on Supporting Groupwork (GROUP '16)*.

VL/HCC 2015

Hudson, N., Chilana, P., Guo, X., Day, J., and Liu, E. (2015) Understanding Triggers for Clarification Requests in Community-Based Software Help Forums. *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '15)*.

Workshop Papers

CHI 2016 CrossFAB Workshop

Hudson, N., Chilana, P., and Alcock, C. (2016) Walk-Up-and-Use 3D Printing: Experiences of Casual Makers. *CHI 2016 CrossFAB workshop*, San Jose, United States (CHI '16).

Presentations

IDSANortheast District Design Conference

Hudson, N. (2014) Swappabilities: a Multi-Function Rapid Prototyping Platform for Education; Student Merit Award Presentation. *2014 IDSANortheast District Design Conference*, New York, United States

Proficient with:

English & French (Bilingual)
Adobe Photoshop & Illustrator
Qualitative Research
HTML / CSS / Javascript
jQuery / Three.js
OS X / Linux
PHP / Wordpress / Drupal
Rapid Prototyping / 3D Printer Design

Experienced in:

Axure / Balsamiq
After Effects / Apple Motion
Solidworks / Photoview
Windows
Git
MySQL
Python
Node.js

References available upon request.

Portfolio online at nathanielh.com

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