

Brad Swerdfeger

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Profile

- + Professional and graduate experience in human-computer interaction and artificial intelligence.
- + Focused on user-centered design, prototyping, development and evaluation.
- + Highly organized, analytical, personable, innovative and reliable.

Education

2007–2009 **M.Sc.**, *The University of British Columbia (UBC)*, Vancouver, BC, Canada.

Computer Science in the field of Human-Computer Interaction
Supervisor: Karon MacLean (Cumulative Average (GPA): 90%)

2003–2007 **B.Cmp.H.**, *Queen's University*, Kingston, ON, Canada.

Computing Science with specialization in Cognitive Science. Graduated with Distinction.
Received Medal in Cognitive Science (Cumulative Average (GPA): 94%)

Experience

May '10–Present **Interaction Architect**, *Blast Radius*, Vancouver, BC.

- + Performing user research, current state and competitive audits, wireframing, prototyping, user flows, information architecture and technical feasibility assessment for interactive media and web designs.
- + Client-facing role: gathering requirements, communicating and iterating on concepts/designs.
- + Client list: Standard Pacific Homes, Seagate (to be launched), The Sports Authority (to be launched).

Nov '09–May '10 **Interface Developer**, *Blast Radius*, Vancouver, BC.

- + Front-end developer with a JavaScript focus. Well-accomplished with back/front-end integration and AJAX.
- + Recieved high praise for work focus, intensity, innovation and engineering ability.
- + Promoted to Interaction Architect in May 2010 after displaying strong analytical and user-centered thinking.

2009 **Technical Writer**, *BeneFACT*, Contract.

- + Identification, summarization and articulation of pervasive technological challenges and uncertainties experienced by a wide range of companies during the software development process.

Summer 2005–2007 **Software Developer (Infrastructure)**, *QNX Software Systems*, Ottawa, ON.

- + Designed and implemented 3 critical intranet systems from concept to deployment; including the database, web and command-line interfaces. Utilized perl, PHP, MySQL and bash. Enacted iterative, user-centred design processes.
- + Created visualization of CVS branching structure.

Technical Fluency

Usability	User research; Competitive analysis; Wire-framing; Prototyping; Personas; Experimental design and logistics; Information visualization	Software	Axure; Visio; Dreamweaver; Photoshop; SVN; Linux Server Administration (apache, MySQL, FTP); MS Office; MATLAB; Eclipse; MS Visual Studio; \LaTeX ; SPSS
Languages	JavaScript; XHTML/CSS/XML; Java (SE6, EE5, JSP); C/C++; Perl; M-code (MATLAB); PHP	Operating Systems	GNU/Linux, Windows, Mac OS X, QNX Neutrino, Solaris

Awards

- 2009 **1st place, ITS SMART Table Application Design Contest, \$8,000 USD**, International.
- 2009 **Graduate TA Award**, Departmental.
- 2007–2009 **NSERC Canadian Graduate Scholarship (CGS M), \$17,500 + \$4,000 per year**, National.
Awarded to high standing scholars who are engaged in a postgraduate program in the natural sciences or engineering. The CGSM is awarded to top-ranked NSERC scholarship applicants (as opposed to PGSM).
- 2007 **Medal in Cognitive Science**, Institutional.
Awarded to highest standing student in graduating class. Earned a 94% cumulative average.
- 2005–2007 **Dean's Honour List with Distinction**, Institutional.
Awarded to top 3% of degree program
- 2005–2006 **Queen's Appeal Undergraduate Scholarship, \$1,200 per year**, Institutional.
Awarded to 16 upper-year undergraduate students in the Faculty of Arts and Science (8,000 students, 99.8th percentile) by recommendation of the Awards Committee. Awarded for two consecutive years.
- 2003–2007 **Queen Elizabeth II Aiming for the Top, \$3,500 per year**, Provincial.

Challenging Projects

- 2008–2009 **Master's Thesis, UBC.**
Assessing the Learnability of Haptic Icons: A Longitudinal Study. Researching the learnability of symbolic, haptic (touch-based) stimuli. Developed, designed and conducted 4 user studies on a Nokia 770 Internet Tablet. Funded by Nokia.
- 2008 **Computational Linguistics (Graduate), UBC.**
Assessing the Viability of the Urban Dictionary as a Resource for Slang. Wrote a spider to collect data from The Urban Dictionary and performed conventional semantic similarity algorithms. These algorithms were shown to be insufficient and interesting properties of slang were identified.
- 2008 **Intelligent Interfaces (Graduate), UBC.**
PriestTutor: An Adaptive Constraint-Based Tip System for World of Warcraft. Developed a tutoring system to help improve the performance of World of Warcraft players using the Priest class.
- 2008 **Multiagent Systems (Graduate), UBC.**
Community-Centred Agents and Emergent Conventions. Developed new, community-centred, game-playing strategies for autonomous agents. Observed and evaluated emergent conventions.
- 2007 **Undergraduate Thesis, Queen's.**
EV/MA: An Architecture for Audio-Visual Speech Recognition. Used Hidden Markov Models to develop an audio-visual speech recognition system.
- 2007 **Advanced User Interface Design, Queen's.**
MusicFriends: A visualization of musical preferences. Mined Facebook and Wikipedia for musical preferences and band information. Plotted a visualization of a person's preferences with respect to their friends'.
- 2006 **Human-Computer Interaction, Queen's.**
RoText: Improving the speed of cellular text messaging with design constraints. Performed modelling and evaluation of current text messaging techniques and redesigned a cellphone's buttons to facilitate faster messaging (used 4 contact points on each button; the button is pressed with a rotation of the finger).

Publications

Bradley A. Swerdfeger. A first and second longitudinal study of haptic icon learnability : the impact of rhythm and melody. Master's thesis, The University of British Columbia, 2009.

Bradley A. Swerdfeger, Jennifer Fernquist, Thomas Hazelton, and Karon MacLean. Exploring melodic variance in rhythmic haptic stimulus design. In *Proc. Graphics Interface*, pages 133–141, Kelowna, May 2009.