**Velian Pandeliev**

www.velian.ca • vpandeliev@gmail.com • (647) 864 1472

## EDUCATION

***University of Toronto***

*Doctoral research (ABD, withdrawn in good standing)*

*Supervisor: Prof. Ronald Baecker, Coursework GPA: 4.00*

**University of Toronto**

M.Sc. Computer Science, Human-Computer Interaction, May 2011

Supervisor: Prof. Ronald Baecker, GPA: 3.58

**Carleton University**

B.A. Cognitive Science, Cognition and Computation, August 2009

Supervisor: Prof. Chris Herdman, GPA: 3.9

**RESEARCH INTERESTS**

**Computer Science Education and Student Feedback** – Reflective teaching relies on student feedback. The traditional definition of “student feedback'' involves a learner-instructor exchange in which the student transmits information to the educator, which is then used to inform teaching changes. Most established ways of gathering student feedback conform to this definition, but with the emergence of new educational technologies learner-learner and learner-material interactions are also becoming accessible to educators. I am interested in one particular technology: anchored discussion boards, which combine the learner-instructor and learner-learner capabilities of an online forum with superimposed document annotation, making learner-material interactions available to teachers as a source of student feedback.

**SCHOLARSHIPS, AWARDS AND HONOURS**

**Wolfond Scolarship in Wireless Information Technology**, 2011

*University of Toronto, valued at 5,000$*

**Ontario Graduate Scholarship**, 2010

*Valued at 15,000$*

**Disney Research Learning Challenge Finalist**, 2010

*Presented at SIGGRAPH 2010*

**Senate Medal for Outstanding Achievement**, 2009

*Carleton University*

**NSERC Undergraduate Student Research Award**, 2005 and 2006

*Valued at 4500$ each*

**Dean’s Honour List**, 2005 – 2007

*Carleton University*

(Professional references available upon request)

## WORK EXPERIENCE

**Department of Computer Science, University of Toronto**

*(27 King's College Circle, Toronto, ON M5S 1A1 CANADA)*

***Limited-term lecturer (HCI/UX), 2014 – present***

Developed and adapted lecture materials and delivered 4 lecture hours a week. Supervised teaching assistants, held office hours, graded student. Sat on professional Master's program admissions committee and supervised undergraduate project courses.

**HP Inc.**

*(1501 Page Mill Rd, Palo Alto, CA 94304 USA)*

***UX Research Intern, Immersive Experiences Lab, July – September 2016***

Conducted User Experience research including surveys and interviews, gathered user requirements for current and upcoming products, evaluated attendee satisfaction and speaker preference after a two-day internal UX conference.

**VMware, Inc.**

*(3401 Hillview Ave, Palo Alto, CA 94304 USA)*

***Intern, User Experience Team, June – August 2015***

Conducted User Experience research including surveys and interviews, gathered user requirements for current and upcoming products, evaluated attendee satisfaction and speaker preference after a two-day internal UX conference.

**Technologies for Aging Gracefully Lab, University of Toronto**

*(27 King's College Circle, Toronto, ON M5S 1A1 CANADA)*

***Lab Manager/Systems Administrator, 2010 – 2014***

Performed routine server maintenance, issued credentials and assets to new lab members, interfaced with university points-of-contact regarding network infrastructure, maintained inventory logs and provided technical support for ongoing research activities.

**Communication and Library Services, Statistics Canada**

*(150 Tunney's Pasture Driveway, Ottawa, ON K1A 0T6 CANADA)*

***Bilingual Alignment and HTML Standards Intern, May 2008 – April 2009***

Performed manual alignment of English- and French-language Webpages to comply with Canadian federal guidelines for information dissemination. Compiled training data sets for language alignment algorithm and assisted in W3C standards compliance verification.

**Advanced Cognitive Engineering Lab, Carleton University**

*(1125 Colonel By Dr, Ottawa, ON K1S 5B6 CANADA)*

***Simulation Support Technician, May – August 2007, January – August 2008***

Assisted in construction and calibration of a Cessna flight simulator. Wrote a lane maintenance proxy task. Evaluated eye tracking system for use in simulated driving.

**Centre for Applied Cognitive Research, Carleton University**

*(1125 Colonel By Dr, Ottawa, ON K1S 5B6 CANADA)*

***Research Assistant, Summer 2005, Summer 2006***

Digitized historical arithmetic performance data, conducted testing sessions on arithmetic fluency using homophones and pseudohomophones of one-digit numbers, performed debugging in C and reimplemented behavioural experiments into E-Prime.

## TECHNICAL SKILLS AND ABILITIES

**Programming Languages**

Python, JavaScript, Java, some familiarity with Objective-C (iOS), C++, Scheme, C

**Web Technologies and Frameworks**

HTML/CSS/JavaScript, jQuery, Django, Apache2

**Version Control and Databases**

SVN, git, PostgreSQL

**Human Participant Research**

Qualitative research methods (thematic analysis, designing and conducting interviews), heuristic evaluations, experimental design, statistical analysis, prototyping, ethics

**Design and Prototyping**

Adobe Photoshop / Illustrator / Lightroom

## LEADERSHIP, ORGANIZATIONS AND AFFILIATIONS

**Technologies for Aging Gracefully Lab**

Technical manager, 2009 – 2014

**GRAND Research Network**

Highly Qualified Professional, GAMFIT and INCLUDE projects, 2009 – 2014

**Canadian Math Kangaroo Contest**

Co-founder and executive member, 2008 – 2014

Problem selection committee, Tbilisi, Georgia, 2010

**National Capital Region Bulgarian Community**

Vice President, Communications, 2008

## TEACHING EXPERIENCE

**Department of Computer Science, University of Toronto**

*CSC318: Design of Interactive Computational Media: 2014-2015, 2015-2017*

*CSC148: Introduction to Computer Science: Spring, Fall 2012, Summer 2013*

*CSC108: Introduction to Computer Programming: Spring 2011*

**Canadian Math Kangaroo Contest**

*Online Training Instructor, 2011 - 2015*

*Problem Selection Committee, October 2010*

**ABC Take-Off Program, Association for Bright Children of Ontario**

*Instructor, Strategy Game Creation, March 2009*

*Instructor, Introduction to Programming with Python, March 2009*

*Instructor, Ancient Civilizations, November 2008*

*Instructor, Mathematics and Cryptography, November 2008*

**PROJECT HIGHLIGHTS**

**Technologies for Aging Gracefully Lab, University of Toronto**

**Academic reading** - conducted an exploratory study of post-secondary digital reading technologies with graduate (n=10) and undergraduate (n=20) students. Currently performing thematic analysis by coding interviews and triangulating with self-reported diary entries.

**Accessible E-books** - Worked on a pre-release version of Accessible Large-Print Listening and Talking E-book, a reading app for the iPad that extended the benefits of traditional audiobooks with live recording and playback of the reader’s voice.

**Mental Fitness Website** - Developed a prototype for conducting mental fitness trials using a Web portal and completed a deployment study on the prototype with twelve seniors as a Master’s project.

**Math Education Game** - Developed the concept for a prototype coordinate geometry educational game called Co-ordinary Heroes, which became a finalist in the 2010 Disney Research Learning Challenge.

**Miscellaneous Projects, University of Toronto**

**Academic Presentation and Reading Interface** – collaborated on a simplified interface for creating, presenting, annotating and reading a variety of course materials, supervised students and helped devise heuristic evaluations of proposed solutions.

**Haptic Interface** - Conducted extensive prototyping to design passive tactile overlays for eyes-free operation of iOS touch screen interfaces, wrote a demo app and used a laser etcher to create over 40 prototype plates with raised or recessed tactile features.

**Audio Transcription** - Designed a keyboard-based audio transcription interface, implemented a prototype in C#, conducted heuristic evaluation and user trials and won an in-class transcription speed and accuracy competition.

**Advanced Cognitive Engineering Lab, Carleton University**

**Driving Simulator Study** - Designed a study exploring the effect of textual information presentation on attention and distraction while driving, conducted trials with 16 participants in a driving simulator and submitted results as Honours project.

**XNA Driving Experiment** - Programmed a prototype game to serve as a low-fidelity proxy for driving ability in a lab study using the XNA Xbox 360 PC library.

**Airplane Simulator** - Converted the fuselage of a Cessna 172 airplane into a three-screen flight simulator.

**Centre for Applied Cognitive Research, Carleton University**

**Arithmetic Experiment** - Programmed and conducted studies on performance when presenting simple arithmetic problems in words (“four + six”) and in nonsensical homophones (“fowr + siks”).

## PUBLICATIONS

**Pandeliev, V.** & Baecker, R. (2011, May). Evaluating Mental Fitness Interventions. Poster

presentation at GRAND 2011 Conference, Vancouver, BC.

**Pandeliev, V.** & Levy, A. (2010, July). Co-Ordinary Heroes: A Coordinate Geometry Learning

Game. Disney Research Learning Challenge Finalist, SIGGRAPH 2010, Los Angeles, CA.

**Pandeliev, V.** & Baecker, R. (2010, May). A Framework for the Online Evaluation of Games for

Health. Poster at Games for Health 2010 Conference, Boston, MA.

**Pandeliev, V.** & Baecker, R. (2010, May). A Framework for the Online Evaluation of Serious

Games. Proceedings of the International Academic Conference on the Future of Game

Design and Technology, Vancouver. BC.

Roberts, M. A., LeFevre, J., Penner-Wilger, M., & **Pandeliev, V**. (2006, November).

## Fowr + Siks: Pseudohomophones and the impact of phonological codes in solving simple arithmetic problems. Accepted for presentation at the annual meeting of the *Psychonomic Society*, Houston, TX.