Velian Pandeliev

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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Doctoral research (ABD, withdrawn in good standing)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 Scholarship 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.