Elham Beheshti

530 W. Aldine Ave, apt 302, Chicago, IL, 60657 ● (847)975-4850 ● beheshti@u.northwestern.edu
http://tidal.sesp.northwestern.edu/people/elham-beheshti

EDUCATION

Ph.D. in Computer Science **2010 - present**
Northwestern University, Evanston, IL, USA
Advisor: Dr. Michael S Horn

M.Sc. in Electrical Engineering **2007 - 2009**
University of British Columbia (UBC), Vancouver, Canada

B.Sc. in Electrical Engineering (major in Electronics) **2002 - 2006**
Sharif University of Technology, Tehran, Iran

RESEARCH INTERESTS

- Educational technology
- Informal learning environments
- Computational modeling in science education

SELECTED PUBLICATIONS AND PRESENTATIONS

- **Beheshti, E.**, Obiorah, M., Horn, M. S. (2015). "Let's Dive into It!": Learning Electricity with Multiple Representations. To be in *Proc. Interaction Design and Children (IDC'15),* Medford, MA.
- Weintrop, D., **Beheshti, E.**, Horn, M. S., Orton, K., Jona, K., Trouille, L., Wilensky, U. (2015). Defining Computational Thinking for Math and Science Classrooms. Revised and resubmitted to *Journal of Science Education and Technology*.
- Littenberg-Tobias, J., **Beheshti, E.,** Staudt, C. (2015). To customize or not to customize? Exploring science teacher customization in an online lesson portal. Revised and resubmitted to *Journal of Research in Science Teaching*.
- **Beheshti, E.**, Weintrop, D., Orton, K., Horn, M. S., Jona, K., Trouille, L., Wilensky, U. (2015). Bringing Expert Computational Practices into High School Science Classrooms. *NARST Annual International Conference (NARST 2015)*, Chicago, IL.
- **Beheshti, E.**, Staudt, C., Forman, G., Broadhead, J., Kimball, N. (2015). Sensing Science: Assessing K-2 Students Readiness for Reasoning with Kinetic Models of Heat using Dynamic Visual Representations. *The Annual Meeting of the American Educational Research Association (AERA 2015)*, Chicago, IL.
- **Beheshti, E.,** Aljuhani, A., and Horn, M. S. (2014). Electrons to Light Bulbs: Understanding Electricity with a Multi-Level Simulation Environment. In *Proc. Frontiers in Education FIE'14*, Madrid, Spain.
- Weintrop, D., **Beheshti, E.**, Horn, M., Jona, K., Kalogera, V., & Wilensky, U. (2013). Casting a Wide Net: Embedded Computational Thinking in STEM. *44th ACM technical symposium on Computer science education SIGCSE'13*, Denver, CO.
- **Beheshti, E.**, Fitzpatrick, C., Hope, A., Piper, A.M., & Horn, M.S. (2013) Circuit in Pieces: Understanding Electricity from Electrons to Light Bulbs. In *Proc. Human Factors in Computing Systems Conference (extended abstracts) CHI'13*. ACM Press.
- **Beheshti, E.**, Van Devender, A., & Horn, M.S. (2012). Touch, click, navigate: Comparing tabletop and desktop interaction for map navigation tasks. In *Proc. Interactive Tabletops and Surfaces ITS'12*. ACM Press.
- **Beheshti, E.** and Horn, M. S. Work in Progress: Learning flow-of-control with FlipLogic: A game-based approach. In *Proc. Frontiers in Education FIE'12*, Seattle, Washington.
- Horn, M. S., Weintrop, D., **Beheshti, E.**, & Olson, I. C. (2012). Spinners, Dice, and Pawns: Using Board Games to Prepare for Agent-Based Modeling Activities. Presented at *the annual meeting of the American Education Research Association (AERA 2012),* Vancouver, Canada.
- **Beheshti, E**., Nojeh, A., and Servati, P. (2011) A first-principles study of calcium-decorated, boron-doped graphene for high capacity hydrogen storage. *Carbon 49*, 5, 1561-1567.

INVITED TALKS

- University of Wisconsin–Milwaukee, College of Engineering & Applied Science, November 2013
- Sharif University of Technology, Department of Electrical Engineering, May 2013

INTERNSHIPS

- **Research Intern**
  The Museum of Science and Industry, Chicago, IL **Fall 2014**
- **Visiting Research Scientist**
  The Concord Consortium, Concord, MA **Summer 2014**

AWARDS AND HONORS

- Northwestern Segal Design Institute Cluster Fellowship, 2013-2014
- International tuition scholarship, University of British Columbia, 2007-2009
- Ranked 78th among 400,000 participants in the nationwide university entrance exam, Iran, 2002

RESEARCH EXPERIENCE

Northwestern University, Evanston, IL
Research Assistant, Tangible Interaction Design and Learning (TIDAL) Lab **Fall 2010 - present**

Northwestern University, Evanston, IL
Research Assistant, School of Education and Social Policies **Fall 2011 - present**
RA for the NSF-funded project: "*Casting a Wide Net: Applied Computational Thinking*".

University of British Columbia, Vancouver, BC, Canada
Research Assistant, Microsystems and Nanotechnology (MiNa) Group **2007 - 2009**

TEACHING EXPERIENCE

Northwestern University, Evanston, IL
Teaching Assistant, Department of Electrical Engineering and Computer Science

- An Introduction to Computer Science to Everyone **Spring 2011**
- Human Computer Interaction **Winter 2011, 2012, & 2015**
- Introduction to Computer Programming **Fall 2010**

University of British Columbia, Vancouver, BC, Canada
Teaching Assistant, Department of Electrical and Computer Engineering

- Micro/Nanofabrication and Instrumentation Laboratory **Fall 2008 & Fall 2009**
- Topics in Nanotechnology and Microsystems **Spring 2009**

West Ridge Middle-School, Chicago, IL
Volunteer Instructor for "Bootstrap program in Chicago" **Fall 2010**
Bootstrap is a curriculum on programming videogames for middle-school students.

Chicago Persian School, Chicago, IL
Volunteer Persian Language Instructor for "Farsi as a Second Language" classes **Fall 2010 – Fall 2013**

SKILLS

- **Programming**: Python, C#, Scheme, MATLAB, NetLogo
- **Web Design:** HTML5, JavaScript, Google Dart
- **Data Analysis:** Statistical analysis (SPSS software), Qualitative research, Discourse analysis
- **UI Design:** Field observation, Paper prototyping, High-fidelity prototyping, Usability testing
- **Hardware Design:** Analog circuit design and implementation, Microcontroller-based system design

EXTRACURRICULAR ACTIVITIES

Associations/Organizations:

- *President of "Iranian Students Association at Northwestern University"* **Fall 2012 – Fall 2014**
- *President of "Grads of EECS" Organization at Northwestern University"* **Winter 2013 – Winter 2014**
- Playing Persian musical instruments (Tar and Tanboor) in the "*Middle East Music Ensemble*" at the University of Chicago.