

LEIFBERG

EDUCATION

Ph.D. Student

Human-Computer Interaction
Iowa State University
Jan. 2011 - Aug. 2015 (Expected graduation)

B.A. Computer Science

St. Olaf College, 2009.

CONTACT

1126 Florida Avenue #621
Ames, Iowa 50014

leif.berg@gmail.com
www.lpberg.com
952.807.6602

EXPERIENCE

Research Assistant

Virtual Reality Applications Center
Iowa State University
Jan. 2011 - Present

Exploring human-computer interactions and user experience across a variety of immersive user interfaces.

Leveraging virtual reality technologies to discover new design processes.

Microsoft Design Research Internship

Windows Research
Microsoft Corporation
May 2013 - Aug. 2013

Impacted design thinking of designers, researchers, and program managers surrounding core user experiences in Windows 8.1.

Investigated how Windows 8.1 updates would be received by varying groups of end-users through the design and execution of several studies.

Applied critical thinking and analytics to findings to support product development and future design directions.

UX Research Internship

Interactive Clinical Design Institute
Biomedical Informatic Research Center
Marshfield, WI
May 2012 - Aug. 2012

Strengthened designers and product managers understanding of how medical staff perceive and utilize electronic health record systems.

Conceptualized and implemented a user-centered design process integrating cognitive modeling into existing evaluation methods.

Executed in-depth usability studies with physicians to identify salient user experience issues in an electronic health record prototype.

Informed key stakeholders and research staff about design directions through presentations and reports.

Teaching Assistant

Human-Computer Interaction
Graduate Program
Iowa State University
Fall 2013 & Fall 2014

Advised students on the design and implementation of course projects.

Described and communicated course concepts using relatable contexts in lectures.

Designed software tutorials to encourage students to explore virtual reality application development.

SKILLSET

Download portfolio at www.lpberg.com.

Methods

A/B Testing, Affinity Diagramming,
Card Sorting, Competitor Analysis,
Contextual Inquiry, Eye-Tracking,
Field Observation, Focus Groups,
Heuristic Evaluation, Keystroke
Level Modeling, Personas,
Prototyping, Interviews,
Storytelling, Surveys, Task Analysis,
Usability Testing, Wireframing

Software

Axure
Balsamiq Mockups
Inkscape
JustInMind Prototyper
Morae
Ovo Studios
UserZoom

Technical

Python
Lua
HTML
jQuery
PHP
MySQL

RESEARCH

Enhanced Immersive Technology to Improve Collaborative Decision Making

Funded by the National Science Foundation, current research aims to explore new design methodologies combining analytical tools for design decision making and immersive sensory environments to support complex design.
Spring 2011 - Present.

Capstone Research Project: Image Compression (Undergraduate)

Directed a team of students in the design and implementation of an image compression algorithm in Python. Researched existing literature to establish goal benchmarks. Final design compressed image data by exploiting polygon mesh connectivity utilizing a special segmentation method. Fall 2009.

Sociotechnical Analysis of Regents Hall, St. Olaf College (Undergraduate)

Conceptualized prospective human-computer interactions within the Regents Hall of Natural Science at St. Olaf College. Surveyed collaborative spaces to identify potential interaction issues. Observed and interviewed potential users to influence future space alterations. Presented findings and recommendations to the building's design team. Spring 2008.

RECENT PUBLICATIONS

Berg, L., Behdad, S., Vance, J., and Thurston, D., "**Disassembly Sequence Evaluation: A User Study Leveraging Immersive Computing Technologies**" Accepted to the ASME: Journal of Computing and Information Science in Engineering. Apr. 2014.

Berg, L., Mahnke, A., Moritz, R., "**Integration of Cognitive Modeling in the Evaluation of an Electronic Health Record**", HFES 2013 Symposium on Human Factors and Ergonomics in Health Care. March 11-13, Baltimore, Maryland, USA.

Behdad, S., Berg, L., Thurston, D., and Vance, J., "**Synergy between Normative and Descriptive Design Theory and Methodology**" Accepted to the ASME 2012 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/DTM 2013 Aug. 4-7, Chicago, Illinois, USA.

Behdad, S., Berg, L., Vance, J., and Thurston, D., "**Immersive Computing Technology to Investigate Trade-offs under Uncertainty in Disassembly Sequence Planning**" Accepted to the ASME: Journal of Mechanical Design January 2012.

EXTRACURRICULAR & SERVICE

President

Human-Computer Interaction Student Group
Iowa State University
2011 - 2012

Student Body Representative

Human-Computer Interaction Graduate Program Supervisory Committee
Iowa State University 2011 - 2012

Graduate Student Mentor

Human-Computer Interaction Graduate Program
Iowa State University
2011 - Present

Volunteer Technology Consultant

Peace Lutheran Church
Hutchinson, MN
2005 - Present