Leif Berg

leif.berg@gmail.com

SUMMARY

Motivated UX researcher with 10+ years of UX & HCI experience. Passionate about applying mixed methods research and service design principles to measure and improve end-to-end user experiences. Proven experience utilizing metrics and analytics to support data-driven decision making. Expertise in HCI, UX strategy, and service design.

EXPERIENCE

Sr. User Experience Researcher

Sandia National Laboratory
Albuquerque, NM
Jul. 2015 - Present

Designing and executing quantitative and qualitative research to improve user experience within complex sociotechnical systems. Demonstrating measurable ROI using metrics and analytics.

Leading corporate initiatives to enhance the UX capability of the organization. Guiding high-level strategy and direction. Creating standards, templates, tools, and processes. Designed and installed usability testing and design lab.

Teaching UX training courses enabling 100+ staff to apply UX practices to their products and services. Mentoring students and junior researchers. Established Community of Practice to engage community in UX topics.

Transformed how 80+ IT services are discovered and requested by partnering with dozens of organizations to conceptualize, prototype, and implement an IT service catalog emphasizing service design principles.

Leading a team exploring UX feedback collection methods to establish strategy for UX benchmarking of products and services.

Graduate Research Assistant

Virtual Reality Applications Center
Iowa State University
Ames, IA
Jan. 2011 - May 2015

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

Leveraged virtual reality technologies to discover new design processes. Investigated synergy between normative and description design methodologies.

Conducted on-site field studies of numerous industries to understand pervasiveness of virtual reality use and technologies.

Microsoft Design Research Internship

Windows Research
Redmond, WA
May 2013 - Aug. 2013

Impacted design thinking of designers, researchers, and program managers surrounding core user experiences in Windows 8.

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

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

HCI Research Internship

Biomedical Informatics 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.

Conducted usability studies, interviews, and focus groups with physicians to identify salient UX issues in an electronic health record prototype.

Implemented a UX evaluation process incorporating cognitive modeling.

EDUCATION

Ph.D. Human-Computer Interaction

Iowa State University, 2015.

B.A. Computer Science

St. Olaf College, 2009.

Leif Berg leif.berg@gmail.com

INTERESTS

Service Design
Board & Video Games
Scandinavian History
Vehicle Detailing
Behavioral Economics
Virtual Reality
Human-Computer Interaction
Logic Puzzles
Yoga & Running

RESEARCH

Enhanced Immersive Technology to Improve Collaborative Decision Making

Funded by the National Science Foundation, research explored new design methodologies combining analytical tools for design decision making and immersive sensory environments to support complex design.
Spring 2011 - Spring 2015.

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.

PUBLICATIONS

Full list available at lpberg.github.io.

Berg, L. P., & Vance, J. M. (2016). **Industry use of virtual reality in product design and manufacturing: a survey**. *Virtual Reality, 1-17.*

Berg, L. P., & Vance, J. M. (2016). **An Industry Case Study: Investigating Early Design Decision Making in Virtual Reality**. *Journal of Computing and Information Science in Engineering.*

Berg, L., Behdad, S., Vance, J., and Thurston, D. (2015). **Disassembly Sequence Evaluation: A User Study Leveraging Immersive Computing Technologies**. *Journal of Computing and Information Science in Engineering. 15(1)*

Behdad, S., Berg, L., Vance, J., and Thurston, D. (2014). **Immersive Computing Technology to Investigate Trade-offs under Uncertainty in Disassembly Sequence Planning**. *Journal of Mechanical Design. 136(7)*

Berg, L., Mahnke, A., Moritz, R. (2013). **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.*

SKILLS

Methods

Affinity Diagramming, Card Sort, Competitive Audit, Contextual Inquiry, Data Visualization, Descriptive Stats, Diary Study, Eye Tracking, Field Studies, Heuristic Analysis, Interviews, Journey Map, Personas, Prototyping, Service Design, Storyboards, Surveys, Task Analysis, Usability Testing, UX Metrics & ROI, Web Analytics

Technical

R, RShiny, Python, Lua, HTML, JavaScript, SQL