William J. Hess

4020 Blendon Way Dr, Gahanna, Ohio 43230
Phone: (614) 327-3467 ● Email: billhessnospam@yahoo.com

Career Objective

To design user-centered interfaces that will increase product usability and overall performance.

Skills Summary

- Human factors professional experienced in developing user-centered designs. Expertise in usability testing to select effective design solutions.
- Research tools: Cognitive task analysis, usability testing, heuristic analysis, interface simulation, user-centered design, user and expert interviews, competitive comparison, rapid and paper prototyping, ethnography, human error investigation, system failure analysis, multimodal design, training development, personas, and use scenarios.
- Ability to reduce tunnel vision in multitasking situations through effective implementation of alerts and reminders in the visual, auditory, and tactile channels.
- Comprehensive understanding of technical training and course development methods. Able to quickly grasp complex tasks and technologies and to efficiently present those concepts to others.
- Proficient with Microsoft XP and Office: Outlook, Word, Excel, Visio, and PowerPoint.
- Working knowledge of Photoshop, FrontPage, HTML, and Flash.

Research Experience

The Ohio State University, Columbus, Ohio 2001 – 2006
The Institute for Ergonomics
Human Factors Graduate Research Associate

- Developed interface design criteria to decrease attentional demands of flight crews during engine malfunctions. Implemented a multidisciplinary approach that consisted of interviews with pilots and aircraft system designers, analysis of accident reports, examination of current cockpit feedback methods, and simulations of engine failures.
- Designed and tested an advanced driving interface to overcome the effects of tunnel vision. For Master's thesis, created realistic simulation of stressful driving conditions and determined which combination of visual, auditory and tactile alerts successfully captured the driver's attention.
- Investigated the driver's ability to monitor and respond to multiple in-vehicle devices. Implemented GPS, radio, cell phone, and vehicle alert interfaces for delivery of cues simultaneously in as many as three sensory channels.
- Researched the effects of cell phone-induced driver distraction on navigational cue delivery.

Teaching Experience

The Ohio State University, Columbus, Ohio 2001 – 2006

Industrial & Systems Engineering and Freshman Engineering Honors Program
Lecturer and Graduate Teaching Associate

- Developed university course to teach engineers about the importance of HCI and usability techniques in product design. Students were eager to apply their new skill sets to interface critiques and design projects. Lecture topics included usability testing, heuristic analysis, human error, computer supported collaborative work (CSCW), and decision support systems.

- Created hands-on product engineering lab modules for freshman honors program. Mentored students in the creation of autonomous robots to compete in head-to-head search and recovery missions.
- Improved the teaching methods of engineering teaching assistants by designing and implementing an educational techniques lecture series.

Work Experience

Evans & Sutherland, Salt Lake City, Utah 1998 – 2001
Technical Training Developer

- Developed training courses to instruct technicians on the maintenance of advanced flight simulator systems. Wrote and produced maintenance training DVD for international customers. DVD was so effective at explaining the complex and delicate maintenance procedures that all the customers soon demanded a copy.
- Recognized for consistently completing technical training course development ahead of schedule and with much higher quality content than specified.
- Facilitated the development of user-centered operation and maintenance manuals by acting as a liaison between the engineers and technical writing staff.
- Administered think-aloud protocol usability test for www.es.com web site. Designed and built usability test bed to support these tests.

Electrical Engineer and Systems Designer

- Designed user interface and optical control system for large aircraft simulator. Increased usability of the product significantly through task analysis, competitive comparison, and user interviews.

Education

The Ohio State University, Columbus, Ohio Summer 2006
M.S. Industrial & Systems Engineering (3.90 GPA)

- Cognitive Systems Engineering focus
- Master's thesis topic: "Crossmodal and Intramodal Attentional Narrowing and Its Interaction with Aging."
- Co-founded Human Factors & Ergonomics Society Student Chapter at OSU. Served as first-year president, later as webmaster.

The Ohio State University, Columbus, Ohio Spring 1998
B.S. Electrical & Computer Engineering (3.53 GPA)

- Digital Design/Analysis and Electromagnetics
- Member of Eta Kappa Nu and Tau Beta Pi Engineering Honoraries.
- Leadership Ohio State student mentor, Engineer's Council representative, Student Events Committee organizer, and Red Cross volunteer.

Professional Organizations

- Human Factors & Ergonomics Society (HFES).
- HFES Student Chapter at The Ohio State University.