

Carl F. Smith, M.A.

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OBJECTIVE

To improve the user experience of software applications using established usability and human factors processes.

SKILLS

User-Centered Design – Trained in principles of system design and application of design principles to human-computer interaction. Applied principles in the design of automotive and mobile devices interfaces, as well as the redesign of multiple web sites.

Task Analysis – 4 years of experience in extracting meaningful insight from task analysis for design and evaluation. Performed task analyses for the design of novel products for two Fortune 500 companies and an international award-winning design. Analyses have been featured in multiple peer-reviewed publications.

Eye Tracking – 3 years of experience in recording and analyzing eye movement data. Currently leading an eye tracking lab focused on providing design recommendations based on eye tracking data.

Evaluating Visual Displays – Over 5 years experience in visual display principles. Provided objective interface evaluation and recommendations for a multinational automotive firm, a Fortune 500 mobile device manufacturer, and several research labs.

Research Methods – Over 5 years training in the design, planning, and execution of multiple research studies. Lead several individual and group research projects. Also created a 5-member Human Computer Interaction lab at George Mason University.

Advanced Statistics – Over 5 years training in analysis using advanced statistical procedures. Skilled at translating quantitative results into real-world recommendations.

EDUCATION

Ph.D., Psychology, George Mason University. Concentration in Human Factors & Applied Cognition, expected August 2007

M.A., Psychology, George Mason University. Concentration in Human Factors & Applied Cognition, May 2004

B.S., Psychology, Old Dominion University, May 2002.

EXPERIENCE

UserCentric (05/06-08/06). User Experience Intern. Responsible for creation of usability standards for an automotive telematics system. Primary author on several standard chapters; also provided interface design recommendations for the contracting agency.

Motorola (05/05-08/05). User Experience Design Intern. Primary designer of the user interface for a mobile device using near-field communication technology. Device was implemented on a joint MasterCard/Motorola field trial. Main user experience advocate for the design of division-wide internal website.

George Mason University (06/02-8/07). Graduate Research Assistant. Served as direct point-of-contact for on and off-site training research with several regional airlines. Gained an understanding of complex flight management systems, and trained several team members to use it. Applied system knowledge to the design of an experimental training program as part of an FAA-funded research team. Also conducted research with a prototype flight display, leading to several publications and recommendations for future display design.

DESIGN AND RESEARCH AWARDS

FAA National Airport Design Award (2007) - Led a student design team in the design of a monitoring and detection system for runway incursions. Design won first place in a national, FAA-Sponsored competition.

GMU Innovations Award (2007) - Led a student design team in the definition and creation of a runway incursion prevention system. Design was recognized as the “Most Effective Corporate/Community Interaction”.

GMU Liberal Arts and Humanities Graduate Fellowship Dissertation Award (2007) – Doctoral research on functional displays awarded with funding by the college. Research was selected from a multidisciplinary pool of applicants across the University.

International Award in Design, Engineering, and Innovation in the Field of Automotive Human Factors (2006) – Led a student design team in the creation of a digital automotive interface using several human-computer interaction design techniques. Recognized by the International Council of Societies of Industrial Design and several design firms.

HFES Training Technical Group Student Award (2006) – Dissertation project was recognized as best proposed student research. Partial funding for dissertation provided by training technical group.

HFES Communications Technical Group Student Paper Award (2006) – Paper on new analyses for the design of mobile devices was recognized as best student research submission.

HFES Student Honor Award (2006) - Recognized by HFES for an outstanding contribution to the field of human factors during tenure as a graduate student.

Alan L. Chaikin Psychology Honors Thesis Award (2002) - Awarded to the best undergraduate research project in psychology.

Virginia Space Grant Consortium Grant Recipient (2001-2002) – Vigilance research supported by a NASA grant. Only undergraduate in department to be funded by an outside agency.

PUBLICATIONS

- Prada, L.R., Boehm-Davis, D. A., Riley, V. & Smith, C.F. (2007) Designing, evaluating, and training flight decks of the future. *Proceedings of the 14th International Symposium on Aviation Psychology*. Dayton, OH.
- Smith, C.F. (2006). Using Task Analysis to Inform Storyboarding: Leveraging Tasks in the Design Space. Poster Presented at World Usability Day New England 2006, Putney, VT. November 14, 2006.
- Smith, C.F. (2006). Designing an Intelligent WiFi Mobile Device Interface with Work Domain Analysis. In Proceedings of the 50th Annual HFES Meeting, October 19, 2006.
- Smith, C.F., Fadden, S., & Boehm-Davis, D.A.(2005). Use of a functional avionics display under varying workload conditions. In Proceedings of the 49th Annual HFES Meeting, September 25, 2005.
- Smith, C.F., Prada, L.R., & Rahman, M.T. (2005) Driving design: Creating simple interfaces for complex cars. *User Experience*, 4(1),14-19.
- Smith, C. F., & Boehm-Davis, D. A. (2005). Improving Novice Flight Performance Using a Functional Flight Display. *Proceedings of the International Symposium on Aviation Psychology 13th Annual Meeting*, Oklahoma City, OK.
- Smith, C.F., Boehm-Davis, D.A.,& Chong, R.S. (2004). The Effect of Functional Information in an Avionics Display. In Proceedings of the 48th Annual HFES Meeting, September 24, 2004.
- Smith, C. F., Mikulka, P.J., Scerbo, M., & Freeman, F.F. (2002) The effect of event rate on the vigilance decrement. Poster Presented at the 46th Annual HFES Meeting, October, 1st, 2002.

AFFILIATIONS

- Human Factors Ergonomics Society Student Member (2002-2007)
- GMU Human Factors Ergonomics Society Student Chapter President (2002-2006)
- ACM-SIGCHI Student Member (2003-2007)
- ACM-SIGCHI Vice President (2003-2006)
- Usability Professionals Association (2004-2007)

REFERENCES

References Available Upon Request.