Jacek K. Spiewla

(734) 368-1179 jkspiewla@gmail.com **Design Portfolio: jacekspiewla.com**

OBJECTIVE

An interaction design position in the technology sector where my skills and expertise can be effectively utilized.

SUMMARY

Over seven years' experience in audio engineering and a passion for product design. Skilled at user research, physical interface prototyping, user-centered interaction design, perceptual audio evaluation, and usability testing. Proven record of award-winning physical and audio device designs, with strong creative, analytical and interpersonal skills.

EDUCATION

M.S. – Information / Human-Computer Interaction Exp. Dec 2011
University of Michigan Ann Arbor, MI

B.S. – Electrical Engineering, Cum Laude May 2004
Michigan Technological University Houghton, MI

INTERACTION DESIGN EXPERIENCE

BeatGlove – Designer, Developer, Researcher Jan 10 – Dec 10

- Developed an interactive glove and software interface for use as a therapeutic musical instrument for occupational hand therapists
- Pioneered a novel participatory design method with University of Michigan faculty used during prototype development

CueBert – Interaction Designer Sep 09 – Dec 09

- Researched, designed and prototyped an audio mixing console interface for musical theatre, employing user-centered design methods
- Published research in 2010 NIME conference proceedings

GroupLoops – Interaction Designer, Developer Jan 09 – Apr 09

- Awarded grant for a multi-disciplinary student-initiated research project
- Developed a gesture-based musical instrument app for the iPhone

ENGINEERING EXPERIENCE

Cambridge Silicon Radio Auburn Hills, MI
Audio Validation Engineer Oct 06 - Present

- Validate simulations and embedded DSP implementations of speech enhancement algorithms, audio codecs, and speech recognition systems
- Measure speech/music quality and intelligibility using subjective (listening tests) and objective methods (electroacoustic, perceptual)
- Develop test methods, scripts and harnesses in MATLAB and Perl for automated regression testing; analyze and visualize large data sets
- Designed an automated test system for characterizing audio quality and latency over Bluetooth saving more than 30 man-hours of work

Nissan Technical Center North America Farmington Hills, MI
Audio Engineer Jun 04 - Oct 06

- Tuned the Bluetooth hands-free DSP subsystem and radio head-unit in nine vehicle lines to optimize telephone speech intelligibility
- Evaluated usability and functionality of navigation systems, text-to-speech synthesis, and voice recognition interfaces
- Developed hands-free telephony test methods to improve team efficiency and product audio quality
- Received Director's Award for Outstanding Job Performance (2006)

INTERACTION DESIGN SKILLS

- Contextual Inquiry
- User Interviews
- Personas & Scenarios
- Lo/Hi-Fi Prototyping
- Usability Testing
- Information Visualization

ENGINEERING SKILLS

- Perceptual Audio Evaluation
- Speech/Music Codec Testing
- Software Testing
- Test Script Development
- Electronics Prototyping

PROGRAMMING

- Perl
- MATLAB
- HTML, CSS
- mySQL, PostgreSQL

SOFTWARE

- Illustrator, Photoshop, Flash
- Adobe Audition
- Axure RP, Balsamiq, Visio
- R

PUBLICATIONS

Liebman, N., Nagara, M., Spiewla, J., Zolkosky, E., "Cue-Bert: A New Mixing Board Concept for Musical Theatre" In Proc. International Conference on New Interfaces for Musical Expression, Sydney, June, 2010.

Kargus, W., Spiewla, J., Spittle, G., Sun, X., Zuluaga, W., "Objective Evaluation of Wideband Speech Codecs for Bluetooth Voice Communication," Proc. 129th Audio Engineering Society Convention, San Francisco, CA, November, 2010.

AFFILIATIONS

- Audio Engineering Society
- ACM SIGCHI

LANGUAGES

- English (fluent)
- Polish (fluent)
- French (intermediate)