
*“Electronic media tend to void space by drawing the viewer into the space of the media.
My work aims to enhance space by drawing media into the space of the viewer.”*

SUMMARY

Creative technologist with over 25 years of experience envisioning and implementing hybrid experiences for a diverse range of media and environments.

MISSION

To create experiences of delight and wonder for all ages.

WORK HISTORY

Steve Boyer Design, Long Beach, CA – Design practice 2008 - present

Founder, principal designer

- invented and patented low cost method for synchronizing unlimited number of electronic devices for creation of collectible electronic toys.
- licensed technology to Chinese manufacturer and worked with vendors in China to oversee development of proof of concept toy prototypes.
- designed iCaroler iPhone app allowing up to 6 devices to sing Christmas carols in perfect synchronization. Worked with outside developer and oversaw production.
- designed and developed smartphone app for City of Santa Monica Glow Festival that synchronized thousands of participants smartphones via GPS in order to create 40000 square foot artwork on the beach in Santa Monica, CA.
- provided design/technology services to major toy company reporting to VP of Innovation.

Vivendi Games/Sierra Entertainment, Los Angeles, CA – Video games 2007 - 2008

Director of Research and Development, Interactive Entertainment

- responsible for launching incubator program for the development of internally generated concepts, reporting directly to VP of Production Process.
- developed concepts for regenerating interest in the Spyro the Dragon property.
- wrote white papers on trends and technologies relevant to new development opportunities one of which evolved into Skylanders toy line.
- Coded and maintained internal social network for sharing new product concepts and encouraging investment in institutional memory.
- served as ‘fixer’ for multiple products including Leisure Suit Larry franchise.

University of California Los Angeles, Los Angeles, CA – Academic research 2003 - 2005

Lab Manager, Design and Media Arts Department, Interactive Electronics Lab

- specified and acquired equipment, materials and supplies for leading research lab.
- supported graduate students and faculty in development of interactive media projects.
- developed hardware and software for interactive exhibition at LACMA.
- conducted training and workshops in electronics and micro controllers.

SkyBoy Productions, Chicago, IL – Video games, interactive electronics 1995 - 2001

Founder, principal designer

- conceived of, produced and developed internationally successful arcade video games.
- developed innovative production pipeline and asset management system integrating custom runtime engines with professional content creation tools.
- developed interactive electronics for museum exhibitions.
- provided contract engineering services to Fisher-Price and other toy companies.
- developed electronic light wand for sale at Disney theme parks.
- pioneered use of expressive animation and color mixing with LEDs.
- developed electronic toy and game concepts, building prototypes in house.
- developed multi-tasking operating system for Z80-based SunPlus family of toy MCUs.

Viacom New Media, Buffalo Grove, IL – Video game production 1993 - 1995

Senior Audio Producer

- responsible for sound and music production for all Viacom New Media projects.
- architect for complete audio production pipeline linking professional sound production tools with custom sound engines for a wide variety of platforms.
- led design of MTVs first interactive music experiment .

WORK HISTORY (continued)

Exit Entertainment, Chicago, IL – Video game production 1989 - 1993

Software Engineer

- wrote realtime OS for sound effects and music playback for custom video arcade systems using Yamaha FM sound chip. wrote music and designed SFX for same system.
- wrote code for electro-mechanical novelty games.
- chief architect of object oriented game development production pipeline and OS.
- developed drivers for custom DSP chips.

Sound Creation, Madison, WI – Electronic music synthesizer design 1987 – 1989

Software Engineer

- responsible for designing and coding PC-based editing tools for the AMY additive music synthesis chip developed by Atari.
- designed and coded pre-Windows custom GUI.

TEACHING EXPERIENCE

California State University, Long Beach, CA 2014 – present

Department of Design, Assistant Professor

- Design History, Industrial Design Studio, Interactive Electronics for Industrial Designers

Otis College of Art and Design, Los Angeles, CA 2008 – 2012

Department of Product Design, Senior lecturer

- Product Design Studio, Senior Thesis, Energy Literacy, Professional Practice
- taught Design Entrepreneurship in landmark collaboration between Otis College and Loyola Marymount University business school.
- led research projects sponsored by Hyundai and Omron

University of California San Diego, La Jolla, CA 2005 – 2007

Visual Arts Department, Lecturer

- developed new curriculum for electronics and micro controllers for artists.
- taught advanced topics in computing and the arts, including network topologies and analysis, self-organizing systems and emergent behaviors.
- advised senior thesis projects for Interdisciplinary Computing in Art and Music major,
- research and lectureship in the history of art and technology.

The School of the Art Institute of Chicago, Chicago, IL 1996 – 2001

Department of Art and Technology Studies, Adjunct Assistant Professor

- taught electronics and micro controllers to artists.

PATENTS

- 2013 **US 8,354,918 B2** - “Light, Sound and Motion Receiver Devices”
An inexpensive method for synchronizing an unlimited number of electronic devices
- 2002 **US 6,392,131 B2** - “Device for Patterned Input and Display of Musical Notes”
A geometric arrangement of musical notes that reflects harmonic relationships.
A musical instrument that can be played with no musical training.
- 2001 **US D422,712 S** - “Light Art Structure”
Animated volumetric LED cube

SKILLS

Programming

C, Assembly Language, Javascript, Processing, HTML 5 Canvas

Microcontrollers and systems

Arduino, ATMEL AVR, 6502, Z80

Electronics

Circuit design, sensors, PCB layout, prototype assembly, mechatronics

Design

Design Thinking, Product Design, Architectural Design, Design Research, Design Education

Software

Creative Cloud, FormZ, Bonzai3D, SketchUp, Keynote, Pages, Numbers, Excel, Powerpoint, etc.

Business and Entrepreneurship

Project Management, Motivational Speaking, Intellectual Property

SELECTED EXHIBITIONS, WORKSHOPS, LECTURES AND PRESENTATIONS

2013 Glow, Santa Monica, CA *"Colorfields"*, synchronized sound and light app for thousands of smart phones

2013 General Assembly, Santa Monica, CA *"Applying Design Methods to Business Problems"*

2013 General Assembly, Santa Monica, CA *"Developing Entrepreneurial Ideas"*

2012 Industrial Design Society of America *"An Inventor's Journey in Intellectual Property Law"*

2011 Hyundai Motors Marketing Innovation Program Otis College and Loyola Marymount University

2009 Human Renaissance Institute (Omron) *"Designing for the Future"*. Otis College

2007 Architecture and Design Museum Los Angeles – *Crosswired* – Installation by Workshop Levitas

2007 Media Center of Seattle – Lecture/Presentation: *Code: The Evolution of Abstraction*

2004 Southern California Institute of Architecture - Mechatronics designer: *Shuffle*, exhibition by Jones Partners

2004 Southern California Institute of Architecture Los Angeles - *Digital Microelectronics in Architecture*

2003 Los Angeles County Museum of Art - group exhibition, *Nano*, in collaborator with UCLA Department of Media Arts

2003 UCLA, Design / Media Arts Department - Electronics for Media Designers

2003 Concordia University and University of Quebec Montreal - Electronics for Artists

2001 SIGGRAPH Los Angeles - responsive sound installation in collaboration with ArtN

2000 SIGGRAPH, New Orleans - responsive sound installation in collaboration with ArtN

EDUCATION

Southern California Institute of Architecture, Los Angeles, CA

Master of Architecture I

- Master's research focused on the growing interdependence between digital and physical environments.
- nominated for prestigious thesis award.

Northwestern University, Evanston, IL

Bachelor of Arts in Music

- pioneering work in electronic music including early research into touch sensitive user interfaces.
- research and practice in sound spatialization and the design of gestural interfaces for electronic music.