# emily c. duff

emilycduff@gmail.com · www.emilycduff.com


## EDUCATION

University of Southern California
School of Cinematic Arts
MFA Interactive Media
Expected Graduation: May 2011

Carnegie Mellon University
BS Information Systems with a focus in Communication Design
Minor in Film and Digital Imaging
Graduation: May 2006

## ACADEMIC RESEARCH

**TCAM: The Tablet Virtual Camera** — Los Angeles, CA
*MFA Thesis Project* — August 2010 – Present

· Created a virtual camera on multi-touch tablet device to explore the creative potential of touch driven communication
· Utilizes motion capture capabilities with game engine technology to render a virtual environment based on real-time interactions

**BMW R.I.D.E.** — Los Angeles, CA
*USC Mobile and Environmental Media Lab and BMW Technology Group* — July 2010 – Present

· Developed an interactive lifelog prototype using the Microsoft Surface
· Conceptualizing and designing driver and car interaction paradigms, including geo-locative and gesture-based controls

**G-Speak Spatial Operating Environment** — Los Angeles, CA
*Oblong Industries and USC Information Sciences Institute* — February 2009 – July 2010

· Explored the potential for commercial and cinematic uses by prototyping and building video editing environments
· Created an application for scientific and statistical genomic research

**USC Institute for Creative Technologies** — Los Angeles, CA
*Mixed Reality Research Group (MxR)* — July 2009 – December 2009

· Developed experimental applications for the Microsoft Surface focusing on sound design and contextual memory awareness
· Experimented with the use of 'whole hand' two-dimensional gestures

## EXPERIENCE

**Motion Capture** — Los Angeles, CA
*University of Southern California and Origami Digital* — August 2009 - Present

· Developed customized pipeline tools for MotionBuilder using the OpenReality SDK
· Experienced in data capture and data cleaning for body-based performance capture
· Efficient in exporting MotionBuilder data for use in other software packages, including 3D game engines

**3D Animation** — Los Angeles, CA
*University of Southern California* — January 2009 - Present

· Focus in texturing, lighting and rendering; proficient with character rigging for Maya and MotionBuilder
· Experienced in creation of HDRI lighting environments from composited HDR images

**Booz Allen Hamilton** — Washington, DC
*Senior Consultant* — July 2006 - Present

· Responsible for the design, development and customization of information management systems using Microsoft SharePoint
· Developed Instructor and User training materials and coursework for 100,000+ Administrators and End-Users
· Worked closely with several Department of Defense clients and contracts; previously held US Security Clearance

## COMPUTER PROFICIENCIES

**Programming Languages**

| | | | |
|---|---|---|---|
| (X) HTML / CSS | JavaScript | C & C++ | Java |
| XML / XSLT | ASP.NET C# | PHP / MySQL | MS SQL Server |
| Processing | Arduino | MaxMSP / Jitter | Python |
| Panda3D | OpenReality SDK | iOS SDK | |

**Applications**

| | | |
|---|---|---|
| Adobe Creative Suite | Autodesk MotionBuilder | Microsoft Office and Access |
| Adobe Flex | Autodesk Maya | Microsoft SharePoint Server |
| Final Cut Pro & DVD Studio | Autodesk FaceRobot | Microsoft Visual Studio.Net |
| Unity3D | Vicon IQ & Blade | |

## RELATED COURSES

| **Interactive Media** | **Film, Design and Animation** | **Computer Science** |
|---|---|---|
| Design for Interactive Media | Introduction to 3D Animation | Fundamentals of System Development |
| Experiments in Interactivity | Animation Principles | Application Design and Development |
| Writing for Interactive Media | Online Information Design | Software Development |
| Interactive Media Management | Communication Design Fundamentals | Information Systems Applications |
| Surveys in Interactive Media | Multimedia Authoring 1 & 2 | Advanced Java Programming |
| Gestural Technology Research | Photographic and Motion Principles | Professions and Technical Writing |
| Immersive Moviemaking | Graphic Media Processing | |
| Interactive Experience and World Design | Visual Expressions | |
| Business of Interactive Media | Motion Capture Fundamentals | |
| Interactive Design and Production | Performance Capture | |

## LEADERSHIP AND ACADEMIC HONORS

| | |
|---|---|
| USC Interactive Media Division Teaching Assistant – 2009 - 2010 | Phi Kappa Phi Honors Society |
| Air Force Chief of Staff Team Excellence Award Nominee - 2009 | Mortar Board |
| Intel Design Expo Participant - 2009 | National Society of Collegiate Scholars |
| Booz Allen Hamilton University Recruitment | The National Deans List |
| Booz Allen Hamilton Outstanding Team Effort Award – 2007 / 2008 | Delta Gamma Fraternity |
| CMU Freshman Orientation Counselor – 2004 / 2005 / 2006 | Order of Omega |
| Lifeguard and Toddler Swim Lessons Instructor | Rho Lambda |