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PROFILE

A motivated and enthusiastic educator/researcher seeking a career teaching people the art and science of digital media. I have over twenty years of experience creating media, animation and programming for user centered interactive digital media. In addition to my past experiences, I have a broad range of interests including robotics, physics, "Making", sculpture, illustration, and teaching others through the use of digital media in all its forms.

EDUCATION

University of Tennessee Knoxville, Knoxville, TN **1991**
BFA with honors in Design and Illustration
Areas of Concentration: Graphic Design,
Computer Animation

Georgia Institute of Technology, Atlanta, GA **2015**
MS with honors in Digital Media
Areas of Concentration: Virtual and Augmented Reality

TEACHING EXPERIENCE

Georgia Institute of Technology, Atlanta, GA **Aug 2017 - Present**
Graduate Teaching Assistant
Taught 'Constructing the moving image' and 'Principles of Visual Design' to undergraduates in computational media. Responsible for designing the syllabus and course structure. In addition to teaching the class I created online video tutorials to facilitate the students learning complex applications used for game development and computer graphics. I co-taught a cross disciplinary Capstone design studio within the Architecture and Design school. The class involved teams from both computational media and Architecture. I was responsible for teaching the digital media aspects of the class as well as overseeing each team in the development of their final projects. In addition to these classes I mentor and lead teams of students in research projects associated with the Vertically Integrated Program classes taught in the Augmented Environments Lab.

Georgia State University, Atlanta, GA **Sept 2000 – May 2001**
Instructor – Advanced Multimedia and
Computer Animation

Responsible for teaching advanced multimedia to senior level students, in bi-weekly lab practicum and lectures. Designed the syllabus, course structure and administered grades for the class. The

range of projects taught in the course included, interactive website development, 2d computer animation, 3d computer animation, video post-production, and game development.

RELATED EXPERIENCE

Georgia Institute of Technology, Atlanta, GA

Jan 2014 - Present

Graduate Research Assistant

Developer of content for the Auburn Avenue Research Initiative, the Parthenon_VR Project and multiple Augmented Reality applications. Research assistant in the Augmented Environments lab responsible for leading teams of undergraduate students in the development of virtual reality and augmented reality applications.

IBM, Atlanta, GA

Jan 1997 – Dec 2014

Rich Media Solution Architect

Created solution architectures and developed front-end multimedia applications for various clients. The range of projects I was fully responsible for included cloud based GPU-accelerated super-computing applications, multi-lingual kiosks, online massively multiplayer 3d games, rich internet applications, online virtual world simulations for training and gaming, 3d animations, and many other digital media installations.

PUBLICATIONS AND PATENTS

“Interactive Narrative Generation Using Location and Genre Specific Context”

Paper describing the use of Machine Learning to create narrative with context to Location. Published in ICIDS 2019 proceedings.

2019

“Field level database encryption using a transient key”

Patent issuer and number us 9251355 - A method for creating single node data encryption per user using transient keys.

2016

“Data encryption at the client and server level”

Patent issuer and number us 9350714 - A method for data encryption on both sides of the client server data exchange.

2016

“Self-Adapting Virtual Small Keyboard Apparatus and Method”

Patent issuer and number us 8456425 – A method to create a virtual self-adapting keyboard for small devices.

2013

2013

“Method for modeling and animating object trajectories in three-dimensional space”

Patent issuer and number us 8405661 – A method for creating and modeling 3d Trajectories based on limited data sets.

2013

“Representing a moving object in a three dimensional coordinate system” 2014

Patent application US 20140125662 A1 - A method for representing a moving object as it moves along a path in a three-dimensional coordinate system.

“Creating Striking Graphics with Maya and Photoshop” 2004

Chapter 9: Recreating Egyptian Antiquities – A chapter describing one of my projects for IBM and the Egyptian Museum in Cairo

CLASSES TAUGHT

Constructing the Moving Image LMC2730

The course is a practice/ theory class where students design visual media based on the visual language of cinematography. The class uses digital media tools like game engines and 3d modeling and animation software to facilitate how motion media is created with a focus on visual narrative and composition. The course instructs students in the art of digital motion media with the goal of teaching them...

- familiarity with the basics of screen studies
- ability to analyze a moving image based on composition, editing, and camera
- ability to do the same for interactive piece (such as a game or a web site)
- combine interaction design and image design in one project
- familiarity with the necessary tools to do so

Principles of Visual Design LMC2720

The course is a practice/ theory class taught in the form of lectures, projects, in-class activities and discussions that cover topics such as color theory, typography, composition and layout. Students learn the basics of visual design that are required to clearly and effectively communicate their ideas on a wide variety of Platforms. The course instructs students in the practice of visual design with the goal of teaching them...

- The principles of design and composition with basic graphic elements.
- How to produce designs based on an established brand.
- Skills with programs like Photoshop, Illustrator, InDesign and Adobe XD.
- To appreciate and evaluate future trends in the development of digital media.
- How to communicate and critique design ideas with their peers.

Third/Fourth Year Capstone Studio Arch 3012/4012

This studio class was a hybrid of two schools architecture and digital media. The goal of the class was to teach students how to collaborate across mediums and learn to modify their processes and creative production to allow for contributions from other fields. The course was taught around the concept of architecturally designing an art museum and using Digital Media to both augment the museum's design as well as designing the museum to use digital media as a basic element of its architecture rather than an afterthought.

RELATED SKILLS

Autodesk Maya (15 years)

Blender (6 years)

Pixologic Zbrush (9 years)

Adobe Photoshop (24 years)

Adobe After Effects (16 years)

Unity Game Engine (6 years)

HTML5/JavaScript (12 years)

Machine Learning (4 years)

Project management (24 years)

Solution Architecture (18 years)

Sculpture (24 years)

3d modeling (22 years)

3d printing (7 years)

Virtual Reality (11 years)

Augmented Reality (5 years)