

ZANE R. COCHRAN

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EDUCATION

MASTER OF SCIENCE – HUMAN COMPUTER INTERACTION Aug 2013 - Present
Georgia Institute of Technology » Atlanta, GA

- » Completed 12 hours, including an independent study with Dr. Ellen Zegura and Dr. Beki Grinter
- » Worked as Graduate Research Assistant in the Interactive Media Technology Center
- » A major contributor in the Interactive Product Design Lab in the School of Industrial Design

NON-DEGREE SEEKING, COMPUTER SCIENCE Aug 2011 - May 2013
Berry College » Mount Berry, GA

- » Completed 24 hours of computer science curriculum including courses in programming languages (Java and Racket), Data Structures, Algorithms, Computer Architecture, Operating Systems and Web Programming

BACHELOR OF SCIENCE, PUBLIC RELATIONS Graduated Aug 2006
University of Texas at Austin » Austin, TX

- » Graduated with high honors (3.55 GPA). Studies included an emphasis in communication, writing, public speaking, web design, graphic design and interactive technology

EXPERIENCE

GRADUATE RESEARCH ASSISTANT Aug 2013 - Present
Interactive Media Technology Center, Georgia Tech » Atlanta, GA

- » Worked with variety of IMTC clients to develop innovative software solutions to satisfy project objectives
- » Designed and prototyped physical hardware including circuits and enclosures using rapid prototyping tools

TECHNOLOGY ADVISOR Dec 2013 - Present
Campbell School of Business, Berry College » Rome, GA

- » Directed research agenda of Berry College's Physical Computing lab and advised students in individual projects
- » Advised the Dean in the creation of the school's Creative Technologies major

VISITING INSTRUCTOR May 2013 - June 2012
iLab Liberia » Monrovia, Liberia

- » Created original curriculum and taught beginner and intermediate level physical computing and Python programming classes
- » Created and executed a successful crowd-funding campaign to facilitate equipment and materials used in the physical computing course
- » Assisted Dr. Ellen Zegura and Dr. Beki Grinter in creating and administering a research survey studying programming education in developing countries

GOOGLE GLASS EXPLORER July 2013 - Present
Independent Work » Rome, GA

- » Developed Glassware to enable tethering between Google Glass and a DSLR camera for enhanced photography experiences
- » Developing Glassware and an Android app to allow runners to view speed, distance and pacing statistics during exercise

RESEARCH ASSISTANT Oct 2011 - Present
Berry College » Mount Berry, GA
» Developed various physical computing projects resulting in published academic research and conference presentations
» Organized the university's physical computing lab and established its research objectives

TEACHING ASSISTANT – PHYSICAL COMPUTING Aug 2012 - Dec 2012
Berry College » Mount Berry, GA
» Collaborated with and assisted students in the development and completion of interactive projects for the physical computing course
» Researched course material and developed weekly lab exercises

SENIOR ACCOUNT EXECUTIVE Oct 2005 - Aug 2010
Sommers Public Relations » Austin, TX
» Expanded the firm's client offerings to include interactive media, website development (PHP and MySQL), HTML-enhanced email distribution and social media management
» Developed campaign strategies for the firm's technology and non-profit clientele and directed a small group of designers and developers in executing these campaigns

PUBLICATIONS

Zane R. Cochran. 2013. The Bit Dome: Creating An Immersive Digital Environment With a Kinect-Based User Interface. *Journal of Computing Sciences in Colleges*.

Zane R. Cochran and Nadeem Abdul Hamid. 2012. Convex hull game: a tangible context for algorithms and computer graphics concepts. *Journal of Computing Sciences in Colleges*.

PRESENTATIONS

Consortium for Computing Sciences in Colleges Southeastern Regional Conference Nov 2013
The Bit Dome: Creating An Immersive Digital Environment With a Kinect-Based User Interface

Berry College - Guest Lecturer Oct 2013
Creative Computing & Image Processing

Digital Atlanta Oct 2013
The Future of News Delivery Discussion Panel

University of Georgia – Invited Speaker Sept 2013
News Delivery: Form and Function

iLab Liberia Special Presentation June 2013
The Future of Physical Computing

The Development of Digital Manipulatives on Multiple Platforms Mar 2013
For Enhanced Student Explorations
Mathematical Association of America Southeastern Conference

Mapping Distance Over Time: An Engaging Mathematics Education Mar 2013
Activity Utilizing Image-Based 3D Reconstruction
Mathematical Association of America Southeastern Poster Presentation

Confluence Technology Symposium Feb 2013
Learning by Doing: The Tangible Benefits of Try-Storming

Consortium for Computing Sciences in Colleges Southeastern Regional Conference Nov 2012
Convex Hull Game: A Tangible Context for Algorithms and Computer Graphics Concepts

Mathematical Association of America Southeastern Poster Presentation Mar 2012
Computer Aided Game Play: Visually Detecting Checkerboard Game State and Game Algorithm

NOTABLE EXIBITIONS

Cortex

Innovations & Prototyping Open House, Rome, GA Dec 2013
Developed an immersive digital space in the form of an 8-foot fiberglass sphere in which users were completely immersed in a digitally projected environment with a gesture-based interface.

s8uare

Geek Week - Rome, GA Sept 2013
Designed and developed a large-scale interactive projection for Cevian Design Lab to be unveiled during Rome's annual Geek Week. Installation will be on display downtown for six months.

The Bit Dome Interactive Experience

Tech Arts Festival - Atlanta, GA Apr 2013
The Bit Dome, an immersive interactive environment was the featured exhibition during Georgia Tech's Tech Arts Festival on the opening night of the event.

Bioluminescence

Firefly Fling - Rome, GA Apr 2013
Developed and presented an interactive projection during the Rome Area Council for the Arts annual fundraising gala where the installation attracted a large amount of media attention.

The Bit Dome Interactive Experience

Confluence - Rome, GA Feb 2013T
The Bit Dome was exhibited for three days during the inaugural Confluence technology conference in Rome. Approximately 400 attendees were able to experience the installation.

CURRENT RESEARCH

PHYSICAL COMPUTING

- » Enhancing STEM education through teaching embedded systems programming and the development and use of tangible and interactive objects

TANGIBLE USER INTERFACES

- » Developing low-cost tangible user interfaces in educational spaces to aid in physical prototyping tasks and interactively demonstrate small data sets.

IMMERSIVE DIGITAL ENVIRONMENTS

- » Utilizing image-based 3D reconstruction techniques to enhance user interfaces and experiences within an immersive digital environment

INFORMATION AND COMMUNICATION TECHNOLOGIES AND DEVELOPMENT

- » Effective methods of ICT education in post-conflict Liberia through teaching introductory programming and physical computing courses that focus on student-created artifacts.

MAJOR SERVICE

HOURLY OF CODE – COMPUTER SCIENCE EDUCATION FOR MIDDLE SCHOOL STUDENTS Dec 2013

- » Developed and organized an introductory programming activity for grades 6, 7 and 8 at Berry College Middle School as part of the National Computer Science Education Week.
- » Activity engaged students in building a 6-foot physical calculator through traditional programming and physical computing activities.

MATH TRAIL – ROBOTICS LAB FIELD TRIP FOR ELEMENTARY STUDENTS Oct 2012 – Nov 2012

- » Created an activity to teach elementary students the fundamentals of symmetry
- » Developed software that modeled the symmetry of snowflakes and created vinyl cut prototypes using CNC tools
- » Organized eight undergraduate students to assist children with activity software and lab equipment

VIKING EXPLORATIONS Summer 2013

- » Instructed and facilitated 25 elementary school students in the Physical Computing Lab at Berry College
- » Worked with students to design objects in 3D software and produce them using 3D printing technology

MATH TRAIL – ROBOTICS LAB FIELD TRIP FOR ELEMENTARY STUDENTS Oct 2012 – Nov 2012

- » Created a variety of activities to engage 325 elementary school students in the Berry College Physical Computing Lab on three separate visits
- » Designed a workbook for visitors to complete based on their experiences within the lab
- » Organized and trained three undergraduate students to help run activity stations in the lab

HONORS & AWARDS

Undergraduate Research Grant
Received 2013 » Berry College

First Place – Research Poster Session
Received 2012 » Mathematical Association of America Southeastern Section

High Honors
Received 2006 » The University of Texas at Austin

ORGANIZATIONS

CASUAL CODING » Berry College Computer Science Club
7HILLS MAKERSPACE » One of the founding members of Rome, Georgia's Makerspace

REFERENCES

DR. ELLEN ZEGURA
Professor and Chair, School of Computer Science, Georgia Institute of Technology

DR. BEKI GRINTER
Professor, School of Interactive Computing, Georgia Institute of Technology

DR. JOHN GROUT

Dean of the Campbell School of Business, Berry College

DR. NADEEM HAMID

Associate Professor, Department of Mathematics and Computer Science, Berry College