

Jonathan Corley
University of West Georgia
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Research Interests

CS Education and Outreach, Software Engineering

Education

Ph.D. in Computer Science, August 2016

University of Alabama, Tuscaloosa, AL, USA

Advisor: Dr. Jeff Gray

Committee: Dr. Jeffrey Carver, Dr. Randy Smith, Dr. Susan Vrbsky, Dr. Eugene Syriani

M.S. in Computer Science, May 2012

University of Alabama, Tuscaloosa, AL, USA

Advisor: Dr. Nicholas Kraft

B.S. in Computer Science, May 2009

University of Alabama, Tuscaloosa, AL, USA

Honors & Awards

Outstanding Graduate Researcher, University of Alabama Department of CS, 2016

President of the University of Alabama chapter of Upsilon Pi Epsilon (UPE), 2015 and 2014
UPE is an international honor society for the computing and information disciplines.

1st place, MODELS ACM Student Research Competition Graduate, 2014. Valencia, Spain

University of Alabama College of Engineering Outstanding Service by a Graduate Student, 2014

Outstanding ACM Graduate Award, University of Alabama Department of CS, 2013

Vice-President of the University of Alabama chapter of Upsilon Pi Epsilon, 2013

Inducted into the University of Alabama chapter of Upsilon Pi Epsilon, 2011

Publications

Refereed Journal and Book Chapter

Jonathan Corley, Brian Eddy, Eugene Syriani, and Jeff Gray “Efficient and Scalable Omniscient Debugging for Model Transformations” In Ghosh, S., Li, J. (Eds.) *Software Quality Journal Special Issue on Program Debugging: Research, Practice and Challenges*. No. 1, January 2017, pp. 7-48

Jonathan Corley, Eugene Syriani, Huseyin Ergin, and Simon Van Mierlo “Cloud-based Multi-View Modeling Environments” In Cruz, A.M., Paiva, S. (Eds.) *Modern Software Engineering Methodologies for Mobile and Cloud Environments*, IGI Global. January 2016, pp. 120-139.

Refereed Conference, Workshop, and Symposia

Jonathan Corley, Ana Stanescu, Lewis Baumstark, Michael C. Orsega “Paper or IDE? The Impact of Exam Format on Student Performance in a CS1 Course” In *Proceedings of the 51st ACM technical symposium on Computer science education* (SIGCSE ‘20). Portland, OR. March 2020.

Omar Alam, Jonathan Corley, Constantin Masson, Eugene Syriani “Challenges for Reuse in Collaborative Modeling Environments” In Proceedings of MODELS 2018 Satellite Events (COMMitMDE@MODELS ‘18). Copenhagen, Denmark. October 2018.

Constantin Masson, Jonathan Corley, Eugene Syriani “Feature Model for Collaborative Modeling Environments” In Proceedings of MODELS 2017 Satellite Events (COMMitMDE@MODELS ‘17). Austin, TX. October 2017.

Jeff Gray, Michele Roberts, Jonathan Corley “Getting Principled: Reflections on Teaching CS Principles at Two College Board University Pilots” In *Proceedings of the 48th ACM Technical Symposium on Computer Science Education* (SIGCSE ‘17). Seattle, WA. March 2017.

Jeff Gray, Jonathan Corley, Brian Eddy “An Experience Report Assessing A Professional Development MOOC for CS Principles” In *Proceedings of the 47th ACM Technical Symposium on Computer Science Education* (SIGCSE ‘16). Memphis, TN. March 2016. pp. 455-460.

Jonathan Corley, Eugene Syriani, Huseyin Ergin “Modeling as a Service: Scalability and Performance of the Cloud Architecture of AToMPM” In *Proceedings of the 4th International Conference on Model-Driven Engineering and Software Development* (MODELSWARD ‘16). Rome, Italy. February 2016. pp. 339-346.

Erwan Bousse, Jonathan Corley, Benoit Combemale, Jeff Gray, and Benoit Baudry “Bringing Efficient Rich Omniscient Debugging to xDSMLs” In *Proceedings of the 8th ACM SIGPLAN International Conference on Software Language Engineering* (SLE ‘15). Pittsburgh, PA. October 2015. pp. 137-148.

Jonathan Corley, Brian Eddy, and Jeff Gray “Towards Efficient and Scalable Omniscient Debugging for Model Transformations” In *Proceedings of the 14th Workshop on Domain-Specific Modeling* (DSM@SPLASH ‘14). Portland, OR. October 2014. pp. 13-18.

Jonathan Corley and Jeff Gray “Supporting Debugging in a Heterogeneous, Globally Distributed Environment” In *Proceedings of the 2nd Workshop on the Globalization of Modeling Languages (GEMOC@MODELS '14)*. Valencia, Spain. October 2014. pp. 63-68.

Jonathan Corley “Exploring Omniscient Debugging for Model Transformations” In *Joint Proceedings of MODELS 2014 Poster Session and the ACM Student Research Competition co-located with the 17th International Conference on Model Driven Engineering Languages and Systems (ACM SRC@MODELS '14)*. Valencia, Spain. October 2014. pp. 63-68.

Jonathan Corley “Debugging for Model Transformations” In *Proceedings of the MODELS 2013 Doctoral Symposium co-located with the 16th International ACM/IEEE Conference on Model Driven Engineering Languages and Systems (DocSymp@MODELS '13)*. Miami, FL. October 2013. pp. 17-24.

Amber Wagner, Jeff Gray, Jonathan Corley, David Wolber “Using App Inventor in a K-12 Summer Camp “In *Proceedings of the 44th ACM Technical Symposium on Computer Science Education (SIGCSE '13)*. Denver, CO. March 2013. pp. 621-626.

Jonathan Corley, Dustin Heaton, Jeff Gray, Jeff Carver, Randy Smith “Brain-Computer Interface Virtual Keyboard for Accessibility” In *Proceedings of the 7th IASTED International Conference on Human-Computer Interaction (IASTED HCI '12)*. Baltimore, MD. May 2012. pp. 199-204.

Refereed Poster and Abstract

Kim C. Huett and Jonathan Corley “Computational Thinking Integrated into Middle Grades Science Instruction: A Review of the Literature” Association for Educational Communications Convention (AECT '20). November 2020. [link](#)

Ewan Petersen*, Carlos Morales, Jonathan Corley, and Brian Eddy “Coding Nation: Gaming Rewards for Coding Practice” In *Proceedings of the 51st ACM technical symposium on Computer science education (POSTERS@SIGCSE '20)*. Portland, OR. March 2020.

Kathleen Haynie, Jeff Gray, Sheryl Packman, Carol Crawford, Mary Boehm, and Jonathan Corley “A Final Project Report on CS4Alabama: A Statewide Professional Development Initiative for CS Principles” In *Proceedings of the 48th ACM technical symposium on Computer science education (POSTERS@SIGCSE '17)*. Seattle, WA. March 2017.

Julia Bernd, Jonathan Corley “Teach Global Impact: A Resource for CSP (or Any CS Class!)” In *Proceedings of the 48th ACM technical symposium on Computer science education (Lightning Talks@SIGCSE '17)*. Seattle, WA. March 2017.

Brian P. Eddy and Jonathan Corley “Searching for Answers: An Exploratory Study of the Formation, Use, and Impact of Queries during Debugging” In *Proceedings of the companion publication of the 2014 ACM SIGPLAN conference on Systems, Programming, and Applications: Software for Humanity (POSTERS@SPLASH '14)*. Portland, OR. October 2014. pp. 51-52.

Jonathan Corley, Eugene Syriani “A Cloud Architecture for an Extensible Multi-Paradigm Modeling Environment” In *Joint Proceedings of MODELS 2014 Poster Session and the ACM Student Research Competition co-located with the 17th International Conference on Model Driven Engineering Languages and Systems (POSTERS@MODELS '14)*. Valencia, Spain. October 2014. pp. 6-10.

Jeff Gray, Mokter Hossain, Jonathan Corley, Amber Wagner, Cassidy Lamm, Mary Boehm, Carol Crawford, Kathleen Haynie, Sheryl Packman, Deepa Muralidhar, Jeff Baker, Roy Black, Sandy Falgout, Leella Holt, Albert Lilly, Gina McCarley, James Morse, Jennie Rountree, Jill Westerlund, and Carol Yarbrough “A First-Year Experience Report on a Model for Statewide Deployment of CS Principles Courses” In *Proceedings of the 45th ACM technical symposium on Computer science education (POSTERS@SIGCSE '14)*. Atlanta, GA. March 2014. pp. 724.

Teaching & Outreach

Teaching Experience

Assistant Professor, University of West Georgia

Special Topics: Introduction to DevOps
Fall 2021

Description: The course will introduce the basic principles (e.g., the Three Ways of DevOps) and practices (e.g., Continuous Integration) of DevOps. Students will be introduced to appropriate modern tools in support of implementing DevOps practices. Furthermore, students will gain experience in applying DevOps practices with an Agile Software Development Process.

Software Engineering I (CS 3211)

Fall 2021, Fall 2020, Fall 2019, Fall 2018, Fall 2017

Description: An introduction to the software development life cycle and contemporary software development methods. This course places special emphasis on object-oriented systems. Students are expected to complete a medium scale software project.

Computer Science I (CS 1301)

Summer 21, Fall 20, Summer 20, Fall 19, Summer 19, Fall 18, Summer 18, Spring 18, Fall 17, Summer 17, Spring 17, Fall 16

Description: This course explores the three fundamental aspects of computer science--theory, abstraction, and design--as the students develop moderately complex software in a high-level programming language. It will emphasize problem solving, algorithm development, and object-oriented design and programming. The course assumes prior experience in programming.

Capstone (CS 4982)

Spring 2021, Spring 2020, Spring 2019

Description: This course integrates core topics of computer science body of knowledge, teamwork, and professional practices through the implementation of a large scale project.

Software Engineering II (CS 3212)

Spring 2021, Spring 2020, Spring 2019, Spring 2018

Description: Software development methods for large-scale systems. Management of software development projects. Software engineering standards. Students are expected to complete a large-scale software project.

Computer Science II (CS 1302)

Spring 2017

Description: This course continues the exploration of theory, abstraction, and design in computer science as the students develop more complex software in a high-level programming language.

Special Topics – Software Design (CS 4985)

Fall 2016

Description: This course introduces students to software design with three central goals. First, students learn how to evaluate software design beyond runtime performance and memory consumption. The course includes general concerns (e.g., extensibility and modularity) and basic Object-Oriented design principles (e.g., single responsibility principle). Second, students learn key software design and architectural patterns (e.g., model-view-controller), and how these patterns can be applied to new and existing software systems. Finally, students are introduced to modeling and diagramming techniques (e.g., class diagrams) that facilitate reasoning about software design.

Instructor, University of Alabama

Programming II (CS 250)

Spring 2013, Fall 2011

Description: A continuation of CS 150. Language concepts: modules, encapsulation, classes and objects, and inheritance. Software engineering concepts: unit tests and using a dedicated debugger. System concepts: scripting and compiling.

Teaching Assistant, University of Alabama

Capstone Computing (CS 495)

Spring 2016, Fall 2015, Fall 2014 taught by Dr. Jeff Gray

Description: A culminating capstone project course that integrates the skills and abilities throughout the curriculum into a comprehensive design and development experience for computer science majors.

Computer Science Principles (CS 104)

Fall 2015, Fall 2014, Fall 2013, Fall 2012 taught by Dr. Jeff Gray

Description: An introductory Computer Science course for non-majors. The course introduces a variety of Computer Science topics including basic procedural programming skills, Abstraction, Algorithms, networks, security, and Big Data along with the ethics and impact of CS in modern society.

MOOC: Computer Science Principles CS4HS

Summer 2015 taught by Dr. Jeff Gray

URL: <https://csp-cs4hs.appspot.com/course>

Description: Sponsored by Google CS4HS, this course is offered as a Massively Open Online Course (MOOC) designed for high school teachers and introducing the major concepts and variety of resources to aid in teaching AP Computer Science Principles. This course is offered as an online course independent of normal university courses using Google Coursebuilder, Google Forms, and YouTube to host course materials.

Course: Programming II (CS 250)

Spring 2014, Fall 2013, Fall 2010 taught by Dr. Nicholas Kraft

Spring 2011 taught by Dr. Marcus Brown

Guest Lecturer, University of Alabama

Testing and Quality Assurance (CS 416)

Spring 2015 taught by Dr. Jeffrey Carver

Description: Study of verification & validation and related processes. Topics include techniques and tools for software analysis, testing, and quality assurance.

Departmental Tutor, University of Alabama

All 3xx and 4xx courses

Spring 2015, Fall 2014

Outreach

UWG Hackathon: Coding for a Better Community

February 2020, February 2019, February 2018

I assisted with judging and mentoring at the University of West Georgia Hackathon in 2018, and worked as co-organizer for the event starting in 2019 focusing on the advanced track which was added in 2019.

STEM Advisory Board at Mason Creek Elementary

August 2018 - Present

I am currently serving as an external advisor for the STEM program at Mason Creek Elementary.

CTAE Advisory Board Meeting at Carrolton High School

October 2020, October 2019

I served as an external CS advisor for the CTAE (Career, Tech, Agricultural Education) advisory board meeting.

CodeFest at UWF

April 2019, April 2018

I served as a mentor during this three day hackathon. During these days students participating designed and built a new application around a theme (e.g., 2018 theme was Engagement and Access). During these days, mentors monitored progress of groups assisted with technical and design issues. Additionally, a group of UWG CS students participated developing an application over the three days of the event. The students were supported by travel funding provided by the UWG CS Dept., and I assisted with managing travel for these students to participate in the event.

Girls Who Code Group – Mason Creek Elementary

March 2019

I led two sessions of the Girls Who Code group at Mason Creek Elementary covering several unplugged exercises on algorithm development then we collaborated to develop the beginning of a Pacman game ([link to Pacman materials](#)).

Georgia STEM Day at Mason Creek Elementary

May, 2019, May 2018, May 2017

I was an invited presenter for the Georgia STEM Day event at Mason Creek Elementary. I presented an interactive session where the group collaborated with me to develop a simple game in the SNAP! Environment or complete an unplugged CS activity. The session was run for several groups of ~20 students per group. The groups included 2nd, 3rd, and 5th grade students.

*Professional Development at Mason Creek Elementary
Spring 2018*

I was invited to give an introduction to programming in the SNAP! environment to a group of roughly 40 teachers at Mason Creek Elementary. The overall goal was to train these teachers as part of a STEM training initiative in the Douglas County School system. I met with the teachers for two sessions introducing them to programming basics within the SNAP! environment as well as demonstrating iterative, incremental development with an emphasis on continuous testing and problem decomposition through building a simple game.

*Computing in the News
September 2016-May 2017*

Computing in the News provide a resource for HS teachers to be able to locate relevant articles for a CS course. The topics are related to computing, and the posts contain a summary of the article along with topics/questions to spark/guide discussion. The project is supported through the NSF funded SInRGI project at Berkeley. As part of the project, I recruited and managed a group of undergraduates at UWG to develop the article summaries described above. The article summaries are posted online as a source of materials for HS teachers.

URL: <http://teachglobalimpact.org/main/news/>

*The University of Alabama STEM Entrepreneurship Academy Summer Camp
July 2016*

I ran a half-day session introducing basics of computer science with unplugged activities and introducing programming in the SNAP! Environment. The event was attended by high school students from across the state of Alabama. The Summer camp aims to give students an introduction to a breadth of STEM fields with other sessions including Biology, Business, Mechanical Engineering, Mathematics, and more.

*Annual Alabama Robotics Contest
April 2016, April 2015, April 2014, April 2013, April 2012, April 2011*

I have developed several of the contest problems each year, judged events, assisted with managing setup and disassembly of the contest area each year, managed scorekeeping, and greeted arriving contestants. The Alabama Robotics Contest is an annual event held at the University of Alabama starting in April 2011. The event is open to K-12 students and focuses on providing a low-cost and fun event which promotes CS education for K-12 students.

URL: <http://outreach.cs.ua.edu/robotics-contest/>

*Programming Lego Mindstorms @ Hale County College and Career Academy
February 2016*

I ran a one-day class introducing students at Hale County College and Career Academy to programming basics with the LEGO Mindstorm robots (EV3). Students were introduced to basic programming structures (e.g., decisions and loops) and provided time to work on a competition problem applying the concepts learned. The local instructor was also provided materials to further reinforce the introduced concepts. The students went on to participate in the annual UA Robotics Competition.

*Event Captain for Science Olympiad Game On! Event
February 2016*

I ran the Game On! event with duties including preparing the game theme, recruiting and preparing volunteers for the event, and managing scorekeeping for the event. Game On! is a one-hour programming contest for middle and high school students run as an event at the Science Olympiad competition. The students participating are provided a theme, and then must craft a game within the Scratch environment over the course of the hour.

*Head Scorekeeper for Shelton State BEST
October 2015, November 2014, November 2013, and October 2012*

I ran the scoring table with duties including recording all scores, generating schedules, and managing the field display which contained current scores and schedule. BEST is a robotics contest for middle and high school students which began in 1993 and has expanded from a single site in Texas to many sites over the nation including regional championships.

*NSF CS4Alabama Professional Development Workshop
October 2015, July 2015, and July 2013*

I have led several sessions including discussing lessons learned from experiences with grading and assisting students taking CSP, discussing and providing examples (using the SNAP! environment) of applying software engineering practices in course projects, and discussing the use of procedural abstraction in course projects with examples built in the SNAP! environment. I also assisted teachers during both individual and group activities.

*Computer Science Principles (CSP) CS4HS MOOC
Summer 2015*

I assisted developing materials, managing technical resources, and handling student interactions for the CSP CS4HS MOOC run by Dr. Jeff Gray and funded by Google.

URL: <https://csp-cs4hs.appspot.com/course>

*Alabama Summer Computer Camps
August 2015, August 2014, August 2013, and August 2012*

I assisted students during individual and group activities. The Alabama Summer Computer Camps span several weeks and are targeted at middle and high school students including international students. The camps utilize the block languages Scratch, Alice, and App Inventor as well as Greenfoot Java to teach CS topics. URL: <http://outreach.cs.ua.edu/camps/>

*Robotics Outreach
Spring 2015, Spring 2014, and Spring 2013*

I led a class which focused on introducing CS topics through the Lego NXT and EV3 programmable robots. The class normally met once per week for 6 weeks at several local elementary schools and a local homeschool group. There were approximately 10-15 students per class with 2-3 classes per year.

Google CS4HS Workshop

July 2012

I assisted teachers during both individual and group activities at the Google CS4HS workshop is a professional development workshop at the University of Alabama. The workshop spanned 2 days and aimed to introduce high school and middle school teachers to new environments and techniques for teaching CS at their school level.

Tuscaloosa Magnet Middle School Robotics Club

Spring 2012 and Fall 2011

I was one of 3 instructors who taught approximately 20 students new topics and helped to manage teams during activities. The Robotics Club was established at Tuscaloosa Magnet Middle School to introduce Middle School students to CS topics through the use of LEGO Mindstorm robots.

Afterschool Outreach Program for Elementary Students

Fall 2011, Spring 2011, and Fall 2010

I planned activities for ~40 elementary children (1st-5th grade), supervised the activities on-site, and coordinated with Tuscaloosa's One Place to identify local elementary schools and schedule times for the activities. The outreach program focused on introducing elementary age children to CS topics and general computing skills through fun activities which utilized netbook computers. The outreach program was a part of the CS II course at the University of Alabama, CS 250: Programming II. Elementary students were mentored by undergraduate students from CS 250 who aided the elementary students in completing the activities.

Professional Service

Reviewer, International Journal on Software and Systems Modeling (SOSYM).

Reviewer, International Journal of Systems and Software (JSS).

Reviewer, 52nd ACM Technical Symposium on Computer Science Education (SIGCSE) March 13th, 2021.

Reviewer, 51st ACM Technical Symposium on Computer Science Education (SIGCSE) March 11th, 2020. Portland, Oregon, USA

Reviewer, 50th ACM Technical Symposium on Computer Science Education (SIGCSE) March 2nd, 2019. Minneapolis, Minnesota, USA

Reviewer, Tools and Demos Track of ACM/IEEE 21st International Conference on Model-Driven Engineering, Languages, and Systems (MODELS), 2018. Copenhagen, Denmark

Reviewer, 2nd International Workshop on Debugging in Model-Driven Engineering (MDEBug@MODELS), 2018. Copenhagen, Denmark

Reviewer, 5th International Workshop on the Globalization of Modeling Languages at Model Driven Engineering Languages and Systems (GEMOC@MODELS), 2018. Copenhagen, Denmark

Reviewer, 4th International Workshop on Executable Modeling (EXE@MODELS), 2018. Copenhagen, Denmark

Reviewer, 49th ACM Technical Symposium on Computer Science Education (SIGCSE), 2018. Baltimore, MD, USA

*Co-editor, Loli Burgueño, **Jonathan Corley**, Nelly Bencomo, Peter J. Clarke, Philippe Collet, Michalis Famelis, Sudipto Ghosh, Martin Gogolla, Joel Greenyer, Esther Guerra, Sahar Kokaly, Alfonso Pierantonio, Julia Rubin, Davide Di Ruscio “Proceedings of MODELS 2017 Satellite Event” CEUR Workshop Proceedings 2019, CEUR-WS.org 2017*

Reviewer, 1st International Workshop on Debugging in Model-Driven Engineering (MDEBug@MODELS), 2017. Austin, TX, USA

Reviewer, 3rd International Workshop on Executable Modeling (EXE@MODELS), 2017. Austin, TX, USA

Reviewer, 4th International Workshop on the Globalization of Modeling Languages at Model Driven Engineering Languages and Systems (GEMOC@MODELS), 2017. Austin, TX, USA

Reviewer, 20th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2017. Austin, TX, USA

Publication Chair, 20th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2017. Austin, TX, USA

Education Track Chair, ACM Southeast Regional Conference (ACMSE), 2017. Atlanta, GA, USA

Reviewer, 48th ACM Technical Symposium on Computer Science Education (SIGCSE), 2017. Seattle, WA, USA

Reviewer, The 16th Workshop on Domain-Specific Modeling at Software, Programming Languages and Applications: Software for Humanity (DSM@SPLASH), 2016. Amsterdam, Netherlands

Reviewer, 4th International Workshop on the Globalization of Modeling Languages at Model Driven Engineering Languages and Systems (GEMOC@MODELS), 2016. Saint-Malo, France

Reviewer, 25th International Conference on Software Engineering and Data Engineering (SEDE), 2016. Denver, CO, USA

External Reviewer, 9th International Conference on Model Transformation (ICMT), 2016. Vienna, Austria

External Reviewer, 12th European Conference on Modeling Foundations and Applications (ECMFA), 2016. Vienna, Austria

External Reviewer, 18th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2015. Ottawa, Canada

External Reviewer, 8th International Conference on Software Language Engineering (SLE), 2015. Pittsburgh, PA, USA

External Reviewer, 14th International Conference on Generative Programming: Concepts and Experiences (GPCE), 2015. Pittsburgh, PA, USA

External Reviewer, 11th European Conference on Modeling Foundations and Applications (ECMFA), 2015. L'Aquila, Italy

External Reviewer, 36th International Conference on Software Engineering (ICSE), 2014. Hyderabad, India

Session Chair, 14th Workshop on Domain-Specific Modeling at Software, Programming Languages and Applications: Software for Humanity (DSM@SPLASH), 2014. Portland, OR, USA

External Reviewer, 7th Transformation Tool Contest part of the Software Technologies: Applications and Foundations federated conferences (TTC@STAF), 2014. York, UK

Student Volunteer, 17th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2014. Valencia, Spain

Reviewer, Doctoral Symposium of the 17th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2014. Valencia, Spain

External Reviewer, 17th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2014. Valencia, Spain

External Reviewer, 13th International Conference on Generative Programming: Concepts and Experiences (GPCE), 2014. Västerås, Sweden

External Reviewer, 10th European Conference on Modeling Foundations and Applications (ECMFA), 2014. York, UK

External Reviewer, 7th International Conference on Model Transformation (ICMT), 2014. York, UK

Student Volunteer, 45th ACM Technical Symposium on Computer Science Education (SIGCSE), 2014. Atlanta, GA, USA

Student Volunteer Chair, 16th International Conference on Model Driven Engineering Languages and Systems (MODELS), 2013. Miami, FL, USA

External Reviewer, 6th International Conference on Software Language Engineering (SLE), 2013. Indianapolis, IN, USA

External Reviewer, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), 2013. San Jose, CA, USA

External Reviewer, 6th International Conference on Model Transformation (ICMT), 2013. Budapest, Hungary

External Reviewer, 5th International Workshop on Modeling in Software Engineering (MiSE), 2013. San Francisco, CA, USA

Reviewer, 50th ACM Southeast Regional Conference (ACMSE), 2012. Tuscaloosa, AL, USA

External Reviewer, 3rd International Conference on Software Language Engineering (SLE), 2010. Eindhoven, The Netherlands

University Service

CS Program Curriculum Committee member – 2017-present

CS Program K12 Initiatives – 2020-present

Faculty Senate – CS Program representative – 2020-present

Faculty Senate – Institutional Planning Committee member – 2020-present

Department of Mathematics, Sciences, and Technology Structure Review Committee – Fall 2020

College of Arts, Culture, and Scientific Inquiry Teacher Education Committee – 2019-present

Funding and Support

Graduate Research Assistantship, University of Alabama, August 2014-2016

NSF grant ([NSF 1240944](#))

Graduate assistantship provided by *CS 10K: A Model for Statewide Deployment of CS Principles Courses*. My duties included assisting with curriculum development for the upcoming CS Principles AP course being developed by the college board for release in 2016; assisting and leading sessions during various professional development workshops for high school teachers; and assisting with developing materials, managing technical resources, and corresponding with participants in a professional development MOOC introducing CS Principles to HS teachers.

Fellowship, University of Alabama, August 2011-August 2014

Graduate Assistance in Areas of National Need ([GAANN](#)) is a prestigious fellowship, funded by the US Department of Education, awarded to individuals who have an outstanding academic record and intend to pursue a career in teaching and research. The fellowship includes tuition, monthly stipend, travel funds, and funds for a laptop.

Student Volunteer SIGCSE 2014, Supporting Registration for SIGCSE 2014

I was awarded full registration waiver for participating as a student volunteer at SIGCSE 2014.

ACM SIGSOCT CAPS, Supporting Travel to SPLASH 2014

I was awarded travel funding through CAPS program for graduate students to support travel to SPLASH 2014.

ACM Student Research Competition (SRC), Supporting Travel to MODELS 2014

I was awarded travel funding through participating in the ACM SRC for graduate students supporting travel to MODELS 2014. I subsequently received the first place award in the graduate category for the ACM SRC at MODELS 2014.

Student Volunteer, Supporting Registration for MODELS 2014 and Satellite Events

I was awarded full registration waiver for participating as a student volunteer at MODELS 2014. Registration included both main conference and satellite events (workshops and symposia).

ACM SIGSOCT CAPS, Supporting Travel to MODELS 2013

I was awarded travel funding through the CAPS program for graduate students supporting travel to MODELS 2013.

Student Volunteer Chair, Supporting Registration for MODELS 2014 and Satellite Events

I was awarded full registration waiver for participating as a student volunteer at MODELS 2014. Registration included both main conference and satellite events (workshops and symposia). Additionally, as a member of the organizing committee I was reimbursed for hotel expenses during the conference and satellite events.

Graduate Research Assistantship, University of Alabama, May 2010-August 2011

NSF grant ([NSF 0941992](#))

Graduate assistantship provided by *Text-to-Art*. My duties were primarily creating projects for a CS 2 course with the theme of Text-to-Art. The projects accepted textual input and produced some form of artistic output (e.g., music or video).

Professional Experience

Programmer/Sys Analyst/Developer, AT&T Labs – DATA Group. Hoover, AL

January 2007-May 2007, August 2007-December 2007, and May 2008-August 2008

Worked individually and as part of a team on a variety of projects including data analysis, desktop application development (C++ and C#), database management, web application development and maintenance (ASP.Net), and website vulnerability reviews.