X I N Z H A O

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# EDUCATION

**The University of Alabama** Tuscaloosa, AL

*Ph.D. Candidate in Computer Science (2015-Present)*

Current research interests: model evolution in systems modeling, software product lines Advisor: Dr. Jeff Gray

**Wuhan University, School of Computer Science** Wuhan, China *Graduate Student, 2014 - 2015*

Focus on computer vision at National Engineering Research Center for Multimedia Software Advisor: Dr. Ruimin Hu

**Hebei Normal University, School of Computer Science** Shijiazhuang, China Bachelor in Science (B.S.), 2009 - 2013

# EXPERIENCE

**Doctoral Research** Tuscaloosa, AL

University of Alabama, 2015 - Present

Empirical studies on systems models, systems models code smells, refactoring, and metrics analyses; feature models complexity analyses.

**Research Assistant** Tuscaloosa, AL

NSF STEM+C ([#1639971](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1639971)), University of Alabama, 01/2020 – 06/2020

Design lesson plans of Edison programmable robots for high school in the Alabama Black Belt region.

[Department of Education – EIR](https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/awards/), University of Alabama, 07/2020 – Present

Assist in summer “CS Professional Development” week of experiences offered to teachers who receive instruction from three different evidence-based curricula that form a CS course pathway.

**Teaching Assistant** Tuscaloosa, AL

University of Alabama, 2015 - 2019

Courses: CS 104 – Computer Science Principles, CS 201 – Data Structure and Algorithm CS 300 – Operating Systems, CS 495 Capstone Computing

**Developer** Tuscaloosa, AL

Gorgas Library at University of Alabama, 06/2018 – 08/2018

Apply JavaScript to manage data in databases of the University of Alabama; Develop and integrate FOLIO (a platform for library management system) to the University of Alabama library.

**Support Staff** Tuscaloosa, AL

2016 CS Principles for High School Teachers Training at University of Alabama, 06/2016

Designed website to promote and provide information about the workshop

Provided assistance to workshop participants

**Graduate Student Researcher** Wuhan, China

National Engineering Research Center for Multimedia Software at Wuhan University, 2014 – 2015 Develop and optimize Surveillance Video Detection System

**Co-Founder and Manager** Shijiazhuang, China

Hebei Normal University, 2011 – 2012

Co-Created official Bulletin Board System for School of Software,

Hebei University and maintained the BBS for one year.

**Undergraduate Student Researcher** Shijiazhuang, China Key Laboratory of Internet of Things of Hebei Province, 2012

Designed and developed Tanlers Energy Management System

PUBLICATIONS

**Journals**

Saheed Popoola, Xin Zhao, and Jeff Gray, Evolution of Bad Smells in LabVIEW Graphical Models. *Journal of Object Technology*, under review.

**Book Chapter**

Xin Zhao, Jiang Zhe, and Jeff Gray, Text Classification and Topic Modeling for Online Discussion Forums

* An Empirical Study from the Systems Modeling Community. In *Trends and Applications of Text Summarization Techniques.* IGI Global, pp 151 – 186.

# Conference Proceedings

Xin Zhao and Jeff Gray, “BESMER: An Approach for Bad Smells Summarization in Systems Models.” *Models and Evolution* at *ACM/IEEE 22th International Conference on Model Driven Engineering Languages and Systems* (**ME@MODELS’19**), Munich, Germany. pp. 304-313.

Xin Zhao and Jeff Gray, “Feature Model Design Guidelines: Exploring the Relationship between Feature Model Structure and Structural Complexity,” *7th International Conference on Model-Driven Engineering and Software Development,* (**MODELSWARD’ 19**), Prague, Czech Republic. pp. 323 – 331.

Xin Zhao, Austin Payne, and Travis Atkison “TTExTS: A Dynamic Framework to Reverse

UML Sequence Diagrams from Execution Traces,” *16th International Conference on Software Engineering Research and Practice*, **(SERP’18)**, Las Vegas, Nevada, USA. pp. 82 – 88.

Xin Zhao, “Feature-oriented Modeling for Collaborative Virtual Environment Construction,” *Doctoral Symposium at ACM/IEEE 20th International Conference on Model Driven Engineering Languages and Systems* (**MODELS’17**), Austin, TX, USA. pp. 494 – 499.

# AWARDS AND HONORS

Awards:

* 2015 International Mathematical Contest in Modeling (MCM)/ Interdisciplinary Contest in Modeling (ICM), runner-up, Sponsored by the Mathematical Association of America.

Academic Scholarship:

* Wuhan University Fellowship, 2014 – 2015
* Academic Excellence Scholarship, Hebei Normal University, 2010 – 2011
* Excellent Student Award, Hebei Normal University, 2011
* National Encouragement Scholarship, 2010

# K-12 OUTREACH

* Annual Alabama Robotics Contest, April 2019, Head Judge.
* CS4HS Summer Camp, June 2019, June 2018, Assistant.
* Annual Alabama Robotics Contest, April 2018, April 2017, Lead Scorekeeper.
* Google CS4HS Course, July 2016, Assistant.

# ACADEMIC SERVICE

**Reviewer,** *ACM\IEEE 23th International Conference on Model Driven Engineering Languages and Systems* (**MODELS’ 20**), *15th European Conference on Modelling Foundations and Applications* (**ECMFA'19**), *15th European Conference on Modelling Foundations and Applications* (**ECMFA'19**), *10th International Conference on Model Transformation* (**ICMT'17**), *22nd Conference of Evaluation and Modelling Methods for Systems Analysis and Development* (**EMMSAD'17**)

**Student Volunteer**, ACM/IEEE *22th and ACM\IEEE 20th International Conference on Model Driven Engineering Languages and Systems* (**MODELS’19 & MODELS’ 17**)