Xin Zhao, Ph.D.

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Education

2015 – 2021 **University of Alabama**

Ph.D. in Computer Science
Major Field of Study: Software Engineering
Advisor: Dr. Jeff Gray

2014 – 2015 **Wuhan University**

Master
Major Field of Study: Software Engineering
Advisor: Dr. Ruimin Hu

2009 – 2013 **Hebei Normal University**

Bachelor of Science in Computer Science
Major Field of Study: Software Engineering

Academic Appointments

Sep. 2021 – **Seattle University**

Assistant Professor, Department of Computer Science

Fundings and Fellowship

June 2024 – Sep 2024 **Summer Research for Undergraduate Faculty Fellow, College of Science and Engineering, Seattle University**

Proposal Title: Self-Portrait of Software Developers Where Software is Not at The Forefront. Sole PI. $6,500.

June 2023 – Sep 2023 **Summer Research for Undergraduate Faculty Fellow, College of Science and Engineering, Seattle University**

Proposal Title: The Climate Surrounding Workplace Discrimination in Human Resources: An Empirical Study in STEM. Sole PI. $6,000.

2022 – 2023 **Faculty Fellow, The Center for Business Ethics, Albers School of Business and Economics, Seattle University**

Proposal Title: An Empirical Study of Employment Discrimination in Information Technology Corporates. Sole PI. $7,000.

Publications

Journals

Popoola, Saheed, **Xin Zhao**, Jeff Gray, and Antonio Garcia-Dominguez. "Classifying changes to LabVIEW and Simulink models via changeset metrics." *Innovations in Systems and Software Engineering* (2024): 1-15. DOI: https://doi.org/10.1007/s11334-024-00577-y.

Xin Zhao, Gurshan Rai, and Saheed Popoola, "Ask or tell: An empirical study on modeling challenges from LabVIEW community", *Journal of Computer Languages*, 80 (2024): 101284. DOI: https://doi.org/10.1016/j.cola.2024.101284.

Xin Zhao and Jeff Gray, "Towards a Metrics Suite for the Complexity Analysis of LabVIEW Systems Models," *Science of Computer Programming*, Vol 227, No. 102931. pp 1 – 26. 2022. DOI: https://doi.org/10.1016/j.scico.2023.102931.

Saheed Popoola, **Xin Zhao**, and Jeff Gray, "Evolution of Bad Smells in LabVIEW Graphical Models," *Journal of Object Technology*, Vol. 20, No. 1, pp. 1-15, 2021. DOI: http://dx.doi.org/10.5381/jot.2021.20.1.a1

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," *Trends and Applications of Text Summarization Techniques.* Idea Group Inc., ISBN: 978-1522593737, 2020, Chapter 6, pp 151 – 186. DOI:10.4018/978-1-5225-9373-7.ch006

Conference Proceedings

Xin Zhao and Narissa Tsuboi, "Early-Career Software Developers – Are you Sinking or Swimming?" In *Proceedings of the 46th International Conference on Software Engineering* (**ICSE**, Society Track), pp. 166-176, Lisbon, Portugal, April 2024. DOI: https://doi.org/10.1145/3639475.3640106

Stefanzick, Julian, and **Xin Zhao**. "Popular Songs: The Sentiment Surrounding the Conversation." In *International Conference on Advanced Data Mining and Applications* (**ADMA**), pp. 368-382, Shenyang, China., August 2023.

Xin Zhao and Riley Young, "Workplace Discrimination in Software Engineering: Where We Stand Today," In *Proceedings of the 45th International Conference on Software Engineering* (**ICSE**, Society Track), pp. 188-193, Melbourne, Australia, May 2023.

Saheed Popoola, **Xin Zhao**, Jeff Gray, Antonio Garcia-Dominguez, "Classifying Changes to Models via Changeset Metrics," In *Proceedings of 14th System Analysis and Modelling Conference* (**SAM**), pp. 276–285, Montreal, Canada, October 2022.

Xin Zhao, Jeff Gray, and Taylor Riché, "A Survey-Based Empirical Evaluation of Bad Smells in LabVIEW Systems Models," *28th IEEE International Conference on Software Analysis, Evolution, and Reengineering* (**SANER**), pp. 177-188, Hawaii, UA (Virtual), March 2021. DOI: 10.1109/SANER50967.2021.00025

Xin Zhao and Jeff Gray, "BESMER: An Approach for Bad Smells Summarization in Systems Models," *Models and Evolution* at *ACM/IEEE 22nd International Conference on Model Driven Engineering Languages and Systems* (**ME@MoDELS'19**), pp. 304-313, Munich, Germany, September 2019. DOI: 10.1109/MODELS-C.2019.00047

Xin Zhao and Jeff Gray, "Design Guidelines for Feature Model Construction: Exploring the Relationship between Feature Model Structure and Structural Complexity," *7th International Conference on Model-Driven Engineering and Software Development*, (**MODELSWARD' 19**), pp. 323 – 331, Prague, Czech Republic, February 2019. DOI: 10.5220/0007388703230331

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)**, pp. 82 – 88, Las Vegas, Nevada, USA, July 2018.

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**), pp. 494 – 499, Austin, Texas, USA, September 2017.

Invited Talk

Guest Lecture, Boise State University, "Bad Smells in Model-Based Systems Engineering: An Empirical View," October 2021.

Xin Zhao and Jeff Gray, "A Complexity Analysis of LabVIEW Systems Models," *2020 ACM Mid-Southeast Conference* (online conference), November 14, 2020.

Experience

May 2021 – Present **Assistant Professor, Seattle University**

Conduct research mainly in the field of Software Engineering and Artificial Intelligence. Teach classes related to Software Engineering.

Aug. 2015 – May 2021 **Doctoral Research, University of Alabama**

Summarization, empirical evaluation, and identification of code smells in systems models.

Jul. 2020 – Jul. 2021 **Research Assistant, University of Alabama**

Department of Education – EIR: Assist in year-long "CS Professional Development" experiences offered to teachers who receive instruction from evidence-based curricula that form a CS course pathway.

Jan. 2020 – Jun. 2020 **Research Assistant, University of Alabama**

NSF STEM+C (#1639971): Design lesson plans for the Edison robots for K-12 schools in the Alabama Black Belt region.

Aug. 2015 – Dec. 2019 **Teaching Assistant, University of Alabama**

CS 104 – Computer Science Principles, Fall 2015; Spring 2016, 2017.
CS 201 – Data Structures and Algorithms, Spring 2018.
CS 300 – Operating Systems, Fall 2018, 2019; Spring 2019.
CS 495 – Capstone Computing, Fall 2016, 2017; Spring 2017, 2018.

Jun. 2018 – Aug. 2018 **Developer, Gorgas Library at the University of Alabama**

Develop and integrate FOLIO (a platform for library management system) for the library management system used at Gorgas Library at the University of Alabama.

Sep. 2014 – Jul. 2015 **Graduate Student Researcher, National Engineering Research Center for Multimedia Software at Wuhan University**

Develop and optimize surveillance systems for person identification with machine learning techniques.

Sep. 2011 – Aug. 2012 **Co-founder and Manager, BBS for School of Software, Hebei Normal University**

Co-founder of the official Bulletin Board System (BBS) for the School of Software and took charge of the maintenance of this board system for 1 year.

Feb. 2012 – Aug. 2012 **Undergraduate Student Researcher, Key Laboratory of Internet of Things of Hebei Province, China**

Designed and developed *Tanlers* Energy Management System.

K-12 Outreach

Game On event at 2021 Alabama State Science Olympiad (**SO**), Co-Coordinator, March 2021.

University of Alabama STEM showcase, judge, March 2021.

Exploring Computer Science (**ECS**) Online Summer Professional Development, project team member, July 2020.

UTeach AP Computer Science Principles (**AP CSP**) Online Professional Development, project team member, July 2020.

Annual Alabama Robotics Contest, administrator and head Judge, April 2019.

CS4HS Summer Camp, assistant. June 2019 and June 2018.

Annual Alabama Robotics Contest, Assistant, April 2018, 2017, 2016.

Computer Science for High School (**CS4HS**, sponsored by Google), course assistant, July 2016.

Awards and Honors

Awards

ACM Travel Grants to **MoDELS** Conference, Amount: $500, 2017.

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

Academic Scholarship

Graduate Student Fellowship, Wuhan University, 2014-2015.

Academic Excellence Scholarship, Hebei Normal University, 2012.

Excellent Student Award, Hebei Normal University, 2011.

National Encouragement Scholarship, Hebei Normal University, 2010.

Academic Services

Seattle University	Tenure-Track Faculty Search Committee for Computer Science Department, 2022 - 2023
	Graduate Students Admission Committee for Computer Science Department, 2023 - present
Program Committee	Annual Modeling and Simulation Conference **(ANNSIM 24)**
	Annual Modeling and Simulation Conference **(ANNSIM 25)**
Journal Reviewer	Journal of Software and Systems Modeling (Springer), 2020 - Present
Conference Reviewer	International Conference on Model Driven Engineering Languages and Systems (**MoDELS**), 2020.
	European Conference on Modelling Foundations and Applications (**ECMFA**), 2020, 2019.
	International Conference on Model Transformation (**ICMT**), 2017.
	International Conference of Evaluation and Modelling Methods for Systems Analysis and Development (**EMMSAD**), 2017.
Student Volunteer	International Conference on Model Driven Engineering Languages and Systems (**MoDELS**), 2019, 2017.