**J. Adam Scribner**

Director of STEM Education Initiatives

Indiana University School of Education

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**SUMMARY**

I bridge theory to practice to create transformative STEM teaching and learning experiences designed to foster the next generation of scientists, engineers, creators, and innovators. In my current role, over the last seven years, I have served as principal investigator or co-principal investigator of 33 grant funded projects totaling $4.9M to advance STEM education in Indiana and beyond. This includes projects pertaining to cancer research, artificial intelligence, climate engineering, and underwater robotics as well as international collaborative projects in Ankara, Bangkok, Berlin, and the Galapagos Islands.

**EDUCATION**

EdD, Saint Peter’s University, Jersey City, NJ

MSEd., Temple University, Philadelphia, PA

BA, Biology, University of Rhode Island, Kingston, RI

**PROFESSSIONAL APPOINTMENTS**

2017- *Director of STEM Education Initiatives*

School of Education, Indiana University, Bloomington, IN

2011-2017 *Manager of STEM Outreach*

Center for Innovation in Engineering and Science Education (CIESE)

Stevens Institute of Technology, Hoboken, NJ

1999-2011 *Science Teacher, House Leader*

Glenfield School, Montclair, NJ

**FUNDED EXTERNAL GRANTS AND CONTRACTS**

Indiana Department of Education STEM Integration, *Monroe County Community School Corporation Synergy in Science: Bridging Classrooms and Laboratories (SynergySci)*, August 2024-June 2025, $66,999. Principal Investigator and Project Director.

Anonymous Foundation, *Educating for Environmental Change: New Curriculum Project Renewal*, September 2024-December 2025, $99,760. Principal Investigator and Project Director.

AmeriCorps, Serve Indiana, *Indiana University School of Education Implementation Grant*, September 2024-August 2025, $142,230. Principal Investigator.

Raymond Foundation, *Educating for Environmental Change*, October 2023-December 2024, $116,056. Principal Investigator and Project Director.

National Institute of Health (NIH) *Educational Pathways to Cancer Research*, September 2023–August 2028, $2,064,240. Key Personnel, Professional Development Instructor.

AmeriCorps, Serve Indiana, *Indiana University School of Education Planning Grant to Aid Rural Libraries*, September 2023-August 2024, $72,188. Principal Investigator.

Raymond Foundation, *Educating for Environmental Change: New Curriculum Project*, September 2023-December 2024, $99,760. Principal Investigator and Project Director.

Indiana Department of Education STEM Integration, *Monroe County Community School Corporation ISTEAM, Integrating ART into STEM Project*, July 2023-June 2024, $100,000. Principal Investigator and Project Director.

Anonymous Foundation, *Educating for Environmental Change: New Curriculum Project*, July 2023-December 2024, $78,000. Principal Investigator and Project Director.

Indiana Department of Education STEM Integration, *Richmond Community Schools ISTEAM Project*, October 2022-June 2023, $75,000. Principal Investigator and Project Director.

Raymond Foundation, *Educating for Environmental Change*, October 2022-December 2023, $94,000. Principal Investigator and Project Director.

Anonymous Foundation, *Educating for Environmental Change: Climate Matters Project*, October 2022-December 2023, $78,000. Principal Investigator and Project Director.

Indiana Department of Education STEM Acceleration, *Greater Clark Community Schools Project GREEN*, August 2022-July 2023, $100,000. Principal Investigator and Project Director.

Indiana Department of Education STEM Acceleration, *Shoals Community Schools Novel Engineering Program*, June 2022-June 2023, $25,000. Principal Investigator and Project Director.

Indiana Department of Education, Student Learning Recovery, *Project LIFT: Literacy Integration for Today’s Students,* June 2021–June 2023, $670,000. Principal Investigator and Project Director.

Indiana Department of Education, *21st Century Community Learning Center*, June 2020-June 2022, $600,000. Principal Investigator and Project Director.

Baxter International Foundation, *STEM Academy for Underserved and Underrepresented Populations*, July 2021-June 2023, $60,000. Principal Investigator and Project Director.

Indiana Department of Education STEM Acceleration, *Greater Clark School District Project GREEN*, January 2020-December 2021, $100,000. Principal Investigator and Project Director.

Baxter International Foundation, *STEM Academy for Underserved and Underrepresented Populations*, July 2020-June 2021, $30,000. Principal Investigator and Project Director.

Brabson Library and Educational Foundation, *Educating for Environmental Change: New Curricular Materials for 21st Century Education*, June 2021-August 2022, $60,000. Principal Investigator and Project Director.

National Science Foundation ***Collaborative Research Theoretical and Methodological Tools for Studying Group Productive Disciplinary Engagement* (NSF #1661266), July 2017-June 2021, $731,366 awarded to Purdue University. Faculty Associate (researcher).**

National Science Foundation STEM+C, *PrimaryAI Integrating Artificial Intelligence into Upper Elementary Science with Immersive Problem-Based Learning* (NSF #1934128 & #1934153), August 2019-July 2023, $670,000 awarded to Indiana University, $700,000 awarded to NC State. Co-Principal Investigator.

Baxter International Foundation, *STEM Academy for Underserved and Underrepresented Populations*, July 2019-June 2020, $30,000. Principal Investigator and Project Director.

Loogootee Community School Corporation, *Authentic STEM (A-STEM) Project*, January 2020-December 2021, $22,000. Principal Investigator and Project Director.

Smithville Community Foundation, *Bloomfield Community School STEM Program*, March 2019-March 2020, $30,000. Principal Investigator and Project Director.

Baxter International Foundation, *STEM Academy for Underserved and Underrepresented Populations*, July 2018-June 2019, $30,000. Principal Investigator and Project Director.

Indiana Department of Education STEM Acceleration, *Bloomfield Schools: Engineering is Elementary*, March 2018-February 2019, $77,500. Principal Investigator and Project Director.

National Science Foundation, *Assessing the Structure of Knowledge in Teaching Mathematics* (NSF #1561456), June 2016-May 2021, $1,740,996. Faculty Associate (Interim Project Director, Fall 2018).

Indiana Department of Workforce Development, *Workplace Simulation Projects*, June 2016-May 2020, $667,000. Faculty Associate and Project Director.

Bayer Foundation, *Making Science Make Sense: Alka Seltzer Rocket Challenge*, June 2012-June 2013, $90,000 awarded to the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. Project Director.

National Science Foundation, *Partnership to Improve Student Achievement in Physical Science: Integrating STEM Approaches (PISA2)* (NSF #0962772), July 2010-June 2015, $11,500,000 awarded to the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. Key Personnel (curriculum developer and teacher professional development facilitator).

Diocese of Paterson, *Integrated STEM (ISTEM),* August 2011-August 2014, $134,000 awarded to the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. Project Director.

Dodge Foundation, *ISTEAM: Integrating Art into STEM*, August 2011-August 2017, $270,000 awarded to the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. Principal Investigator and Project Director.

National Science Foundation, *Build IT Underwater Robotics Scale Up for STEM Learning and Workforce Development (BISU)* (NSF #0929674), August 2009-June 2013, $2,499,998 awarded to the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. Key Personnel (curriculum developer and teacher professional development facilitator).

Earthwatch, Educator Grant, *Moose and Wolves*, predator prey ecology study on Isle Royal, MI, August 2005, $2500. Invited Participant.

Earthwatch, Educator Grant, *Early Man in Spain*, archaeology study in Orce, Spain, August 2003, $3500. Invited Participant.

**FUNDED INTERNAL GRANTS AND CONTRACTS**

IU Center for Latin American and Caribbean Studies grant to bring teachers from the Galapagos Islands to Indiana University, May 2024, $3,000. Principal Investigator.

IU Center for Global Study Faculty Travel Grant to Berlin, Germany, *Incorporating the Sustainable Development Goals into Science Teacher Education Across Nations: Enhancing Teachers’ Efforts to Internationalize their Science Lessons,* March 2024, $750.Principal Investigator and Instructor.

IU Office for the Vice President of International Affairs (OVPIA) International Collaboration Grant, *Galapagos Islands Exploratory Environmental Education Project*, February 2024, $3,000. Principal Investigator and Instructor.

IU Office for the Vice President of International Affairs (OVPIA) International Collaboration Grant, *Burmese Teacher Training Project in Bangkok Thailand*, August 2023, $2,000. Principal Investigator and Instructor.

IU Center for Rural Engagement, *Educating for Environmental Change*, September 2022 – December 2022, $19,944. Principal Investigator and Project Director.

IU Center for Rural Engagement, *ISTEAM: Integrating Art into STEM*, May 2022 – December 2022, $45,000. Principal Investigator and Project Director.

IU Center for Rural Engagement, *ISTEAM: Integrating Art into STEM*, May 2021 – April 2022, $65,000. Principal Investigator and Project Director.

IU Center for Rural Engagement, *ISTEAM: Integrating Art into STEM*, May 2020 – April 2021, $65,000. Principal Investigator and Project Director.

IU Environmental Resilience Institute, *Educating for Environmental Change*, June 2019 – June 2022, $82,396. Principal Investigator and Project Director.

IU Center for Rural Engagement, *ISTEAM: Integrating Art into STEM*, January 2019 – April 2020, $65,000. Principal Investigator and Project Director.

**PUBLICATIONS**

**Scribner**, J.A., Teachers’ Perceived Challenges to Teaching Climate Change in Indiana, *The Hoosier Science Teacher*. In review.

Burgess, A., **Scribner**, J.A. An Evaluation of an Asset-Based Community Developed Approach to Teacher Professional Development and its Sustained Impact on Teacher Self-Efficacy Beliefs for Teaching Climate Change, *Applied Environmental Education & Communication*. In review.

Goddard, P., Kravitz, B., **Scribner**, JA**,** Milks, K., & Peterson, C.,(2024)Incorporating Climate Engineering into Secondary Education: A New Direction for Indiana’s Science Classroom, *The Hoosier Science Teacher.* Vol. 47 No. 1., July 8, 2024.

Goddard, P., Kravitz, B., & **Scribner**, JA. (2023). A climate engineering teaching module for high school Earth Science students. *AGU23*.

Chakraburty, S., Jeon, M., Glazewski, K. D., Hmelo-Silver, C. E., **Scribner**, J.A., Mott, B. & Lester, J. (2023). An Analysis of Teacher Practices and Student Participation in Contrasting Activity Systems in an AI Educational Program. In *Proceedings of the 17th International Conference of the Learning Sciences-ICLS 2023, pp. 1026-1029*. International Society of the Learning Sciences.

Mott, B., Gupta, A., Glazewski, K., Ottenbreit-Leftwich, A., Hmelo-Silver, C., **Scribner**, J.A., ... & Lester, J. (2023, June). Fostering Upper Elementary AI Education: Iteratively Refining a Use-Modify-Create Scaffolding Progression for AI Planning. In *Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 2* (pp. 647-647).

Ottenbreit-Leftwich, A., Glazewski, K., Hmelo-Silver, C., Jantaraweragul, K., **Scribner**, J.A., Lee, S., Mott, B. & Lester, J. (2022, March). Is Elementary AI Education Possible? In *Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 2* (pp. 1364-1364).

Park, K., Mott, B., Lee, S., Gupta, A., Jantaraweragul, K., Glazewski, K., **Scribner**, J.A. ... & Lester, J. (2022). Investigating a visual interface for elementary students to formulate AI planning tasks. *Journal of Computer Languages*, *73*, 101157.

Ottenbreit-Leftwich, A., Glazewski, K., Jeon, M., Jantaraweragul, K., Hmelo-Silver, C. E., **Scribner**, J.A., ... & Lester, J. (2022). Lessons Learned for AI Education with Elementary Students and Teachers. *International Journal of Artificial Intelligence in Education*, 1-23.

Glazewski, K., Ottenbreit-Leftwich, A., Jantaraweragul, K., Jeon, M., Hmelo-Silver, C., **Scribner**, J.A., ... & Lester, J. (2022, July). PrimaryAI: Co-Designing Immersive Problem-Based Learning for Upper Elementary Student Learning of AI Concepts and Practices. In *Proceedings of the 27th ACM Conference on Innovation and Technology in Computer Science Education Vol. 2* (pp. 628-628).

Ottenbreit-Leftwich, A., Glazewski, K., Jeon, M., Jantaraweragul, K., Hmelo-Silver, C., **Scribner**, J.A., & Lester, J. (2022, July). Principles for AI Education for Elementary Grades Students. In *Proceedings of the 27th ACM Conference on Innovation and Technology in Computer Science Education Vol. 2* (pp. 627-627).

Nicholas, C. & **Scribner**, J.A. (2021). Enhancing PBL authenticity by engaging STEM professional volunteers. *Interdisciplinary Journal of Problem-Based Learning, 15*(2).

Park, K., Mott, B., Lee, S., Glazewski, K., **Scribner**, J.A., Ottenbreit-Leftwich, A., & Lester, J. (2021, October). Designing a Visual Interface for Elementary Students to Formulate AI Planning Tasks. In *2021 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)* (pp. 1-9). IEEE Computer Society.

Lee, S., Mott, B., Ottenbreit-Leftwich, A., **Scribner**, J.A., Taylor, S., Park, K., ... & Lester, J. (2021, May). AI-Infused Collaborative Inquiry in Upper Elementary School: A Game-Based Learning Approach. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 35, No. 17, pp. 15591-15599).

Bae H., Saleh A., Feng C., Glazewski K., Hmelo-Silver C., Chen Y., **Scribner** J.A., Mott B., Lee S., Lester J., (2020) Designing Intelligent Cognitive Assistants with Teachers to Support Classroom Orchestration of Collaborative Inquiry, ICLCS conference proceedings, Fall, 2020).

Lee S., Mott B., Lester, J., Ottenbriet-Leftwich, A., Taylor, S., Glazewski, K., Hmelo-Silver C, **Scribner** J.A., (2020) Designing a Collaborative Game-Based Learning Environment for AI-infused Inquiry Learning in Elementary School Classrooms, ITICSC conference proceedings, June 2020).

Rogat T., Cheng B., Hmelo-Silver C., Traynor A., Adeoye T., Gomoll A., Downing B., **Scribner** J.A., (2019) A multidimensional Framework of Groups’ Productive Disciplinary Engagement, ICLCS conference proceedings, Fall, 2019.

Tan, V., Nicholas, C., **Scribner**, J.A., & Cross Francis, D. (2019). Enhancing STEM learning through an interdisciplinary, industry-generated project. Technology and Engineering Teacher. February 2020.

**Scribner**, J.A. (2017) Educator Backgrounds and Their Effect on Student Understanding of the Engineering Design Process. American Society of Engineering Education Conference, Columbus, OH July, 2017.

**Scribner**, J.A. (2016) ***Doctoral Dissertation*:** Diving Deep: A Comparative Study of Educator Undergraduate and Graduate Backgrounds and Their Effect on Student Understanding of Engineering and Engineering Careers, Utilizing an Underwater Robotics Program. Proquest, 2016.

Kennedy, K. B., & **Scribner**, J.A. (2014). The Justin Time Challenge. *Science Scope*, *38*(3), 44.

**CONFERENCE PRESENTATIONS AND INVITED TALKS**

**Scribner**, J.A., “Global Goals, Local Impacts: Transformative Classroom Instruction for Fostering Sustainability and Inclusivity” Keynote Address (online). The Fourth International Conference on Education, hosted by Srinakharinwirot University (Bangkok, Thailand), July 3, 2024.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Midwest Climate Summit, April 2024, Indianapolis, IN.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Hoosier Association of Science Teachers, Inc. (HASTI) conference, February 2024, Indianapolis, IN.

**Scribner**, J.A., “Teaching STEM Online,” Indiana University & National Institute for the Development of Administration (NIDA) conference, August 2023, Bangkok, Thailand.

**Scribner**,J.A., “Teaching Climate Change,” Global Teaching Dialogue, US Department of State, July 2023, Virtual.

**Scribner**, J.A**.**, “Primary AI, Integrating Artificial Intelligence into Elementary Science,” National Association of Science Teachers (NSTA) conference, March 2023, Atlanta, GA.

**Scribner**, J.A., “Educating for Environmental Change,” National Association of Science Teachers (NSTA) conference, March 2023, Atlanta, GA.

Rahman, S.,Liu, C., **Scribner**, A. & Spencer P. A Toolbox for Teaching Climate Change at Curriculum and Instruction Graduate Research Symposium, March 2023, Indiana University, Bloomington, Indiana.

**Scribner**, J.A., “Primary AI, Integrating Artificial Intelligence into Elementary Science” Hoosier Association of Science Teachers, Incorporated (HASTI) conference, February 2023, Indianapolis, IN.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Hoosier Association of Science Teachers, Inc. (HASTI) conference, February 2023, Indianapolis, IN.

Hamburger, M.W. and **Scribner, J.A**., “Educating for Environmental Change: An ERI STEM Outreach Program”, Indiana Sustainability and Resilience Conference, February 2023, Indianapolis, IN

**Scribner**, J.A**.**, “Climate Engineering Teaching Module,” Hoosier Association of Science Teachers, Inc. (HASTI) conference, February 2023, Indianapolis, IN.

**Scribner**, J.A**.**, “Changing Standards, Changing Climate”, Youth Environmental Leadership Summit (YELS), November 2022, Bloomington, IN

**Scribner**, J.A**.**, “Changing Standards, Changing Climate: Teaching Climate Change with NGSS”, Hoosier Association of Science Teachers, Incorporated (HASTI) NGSS Mini-conference, October 2022, Indianapolis, IN.

**Scribner**, J.A**.**, “Educating for Environmental Change”, Indiana University Environmental Resilience Institute’s Prepared for Environmental Change Symposium, May 2022, Bloomington, IN.

**Scribner**, J.A., K. Publow, A. Moore, “Primary AI,” Hoosier Association of Science Teachers, Incorporated (HASTI) conference, February 2022, Indianapolis, IN.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Hoosier Association of Science Teachers, Inc. (HASTI) conference, February 2022, Indianapolis, IN.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Environmental Education Association of Indiana (EEAI) conference, November 2021, Mitchell, IN.

**Scribner**, J.A., “ISTEAM: Integrating Art into STEM,” IU Center for Rural Engagement’s Rural Conference, May 2021, Virtual.

**Scribner**, J.A., “Educating for Environmental Change,” IU Grand Challenge Virtual Research Roundtable, April 2021, Virtual.

**Scribner**, J.A**.**, “Fostering Successful Partnerships to Bolster Research Projects and Enhance Your College Experience,” IU School of Education Office of Diversity, Equity, and Inclusion, March 12, 2021, Virtual.

**Scribner**, J.A**.**, “Educating for Environmental Change,” Hoosier Association of Science Teachers, Incorporated (HASTI) conference, February 2021, Virtual.

**Scribner**, J.A., “Educating for Environmental Change,” Indiana Department of Environmental Management (IDEM) conference, September 2020, Virtual.

**Scribner**, J.A., “Educating for Environmental Change,” Hoosier Association of Science Teachers, Incorporated (HASTI) conference, February 2020, Indianapolis, IN.

**Scribner**, J.A**.**, “ISTEAM: Integrating Art into STEM,” IU Center for Rural Engagement Quality of Place Focus Area Network, December 2019, Bloomington, IN.

**Scribner**, J.A., “Developing an Underwater Robotics Curriculum, Lessons Learned,” STEM4Future conference, Middle Eastern Technological University, May 2019, Ankara, Turkey.

**Scribner**, J.A., “Workplace Simulation Projects: Authentic, Interdisciplinary STEM Education Utilizing Stem Professional Volunteers,” Project Lead the Way Summit, March 2019, Indianapolis, IN.

**Scribner**, J.A., “A Comparative Study of Educator Backgrounds and Their effect on Student Understanding of Engineering Careers, Utilizing an Underwater Robotics Program,” American Society of Engineering Educators (ASEE) conference, June 2017, Columbus, OH.

**Scribner**, J.A., “Workplace Simulation Projects,” Baxter Biopharma Solutions, invited speaker, September 2017, Bloomington, IN.

**Scribner**, J.A., “Using Arts Infused Instruction to Enhance New Jersey’s Learning Standards,” New Jersey Arts Education Partnership Conference, May 2016, Princeton, NJ.

**Scribner**, J.A**.**, “Connecting Physical Science and Engineering through the Design of an Underwater Robot,” International Technology and Engineering Educators (ITEEA) conference, May 2016, Washington, DC.

**Scribner**, J.A**.**, “Connecting Physical Science and Engineering through the Design of an Underwater Robot,” National Science Teachers Association (NSTA) conference, April 2016, Nashville, TN.

**Scribner**, J.A**.**, “Connecting Physical Science and Engineering through the Design of an Underwater Robot,” International Technology and Engineering Educators (ITEEA) conference, May 2015, Milwaukee, WI.

**Scribner**, J.A**.**, “Energy House” at National Science Teachers Association STEM Forum, (NSTA), July 2015, Minneapolis, MN.

**Scribner**, J.A**.**, “Connecting Physical Science and Engineering through the Design of an Underwater Robot,” New Jersey Technology and Engineering Educators Association (NJTEEA) conference, September 2015, Madison, NJ.

**Scribner**, J.A., “Connecting Physical Science and Engineering through the Design of an Underwater Robot,” National Science Teachers Association, (NSTA) conference, March 2015, Philadelphia, PA.

**Scribner**, J.A**.**, “Teaching STEM Using Underwater Robots,” National Science Teachers Association STEM Forum, July 2014, New Orleans, LA.

Kennedy, K., **Scribner**, J.A**.**, “The Just in Time Challenge,” National Science Teachers Association STEM Forum, July 2014, New Orleans, LA.

Sayres, J., **Scribner**, J.A., “Teaching STEM Using Underwater Robots,” International Technology and Engineering Educators (ITEEA) conference, May 2014, Orlando, FL.

**Scribner**, J.A., Jurado, C., “Teaching STEM Using Underwater Robots,” National Afterschool Association (NAA) conference, March 2014 (New York, NY)

**Scribner**, J.A., Integrating Art into STEM,” New Jersey Science Teachers Association (NJSTA), conference, October 2013, Princeton, NJ.

**Scribner**, J.A., Jurado, C., “Teaching STEM Using Underwater Robots,” New Jersey Science Teachers Association (NJSTA), conference, October 2013, Princeton, NJ.

**Scribner**, J.A., Jurado, C., “Teaching STEM Using Underwater Robots,” International Technology and Engineering Educators (ITEEA) conference, May 2013, Columbus, OH.

**Scribner**, J.A**.**, “Teaching STEM Using Underwater Robots,” New Jersey Technology and Engineering Educators Association (NJTEEA) conference, September 2013, Montclair, NJ.

Sayres, J., **Scribner**, J.A., “Teaching STEM Using Underwater Robots,” International Technology and Engineering Educators (ITEEA) conference, May 2012, Long Beach, CA.

**Scribner**, J.A., “Integrating Art into STEM,” New Jersey Technology and Engineering Educators Association (NJTEEA) conference, September 2012, Newark, NJ.

Sayres, J., **Scribner**, J.A., “Teaching STEM Using Underwater Robots,” New Jersey Technology and Engineering Educators Association (NJTEEA) conference, September 2012, Newark, NJ.

**Scribner**, J.A., Jurado, C., “Teaching STEM Using Underwater Robots,” New Jersey Science Teachers Association (NJSTA), conference, October 2012, Princeton, NJ.

**COURSES TAUGHT**

Q200, Introduction to Scientific Inquiry, Indiana University School of Education\*

E328, Science in the Classroom, Indiana University School of Education\*

*\*100% of participating students agreed or strongly agreed with the following statement on post-course questionnaires: “I would rate this instructor as outstanding”.*

**ACADEMIC SERVICE**

Member, Dissertation Committee for Conghui Liu for dissertation titled *Fostering Undergraduates’ Socioscientific Reasoning Skills Through Media Analysis,* Fall 2023

Member, Dissertation Committee for Qiu Zhong, for dissertation titled *What Can Models Do? Improving the Epistemological Knowledge of Climate Models and Modeling Among Secondary Science Preservice Teachers,* Fall 2022

Reviewer/Member of the Editorial Team, The Hoosier Science Teacher journal, 2022

Appointed Faculty Member, IU School of Education Learning and Technology Committee, 2022-2025

Faculty Co-chair, IU Center for Rural Engagement, Quality of Place Initiatives, 2022

Member, Board of Directors, *College Director*, Hoosier Association Science Teachers Inc. (HASTI), 2022

Member, STEM Advisory Board Committee, Greater Clark School District, 2022

Team Leader, Indiana Department of Education’s STEM Priorities Committee, 2021.

Team Leader, Member, Indiana Department of Education’s Science Standards Review Committee, 2021.

Member, Advisory Council, TeachClimate.Org., 2020

Member, Indiana Governor’s Council Advisory Committee for Cybersecurity, 2019.

Affiliated Faculty, Youth Environmental Leadership Summit, Indiana University, 2019-date.

Member, Monroe County Community School Corporation STEM+C Planning Committee, 2018.

Affiliated Faculty, Environmental Resilience Institute, Indiana University, 2018-date.

Affiliated Faculty, Center for Rural Engagement, Indiana University, 2018-date.

Member, Design Team, Academy of Science and Entrepreneurship, Monroe County Community School Corporation, 2018.

Member, Monroe County Community School Corporation Ready Schools Initiative, 2018.

Instructor, Youth Environmental Leadership Summit, Indiana University, October 2018.

Volunteer Facilitator, Girls in Engineering Math and Science (GEMS) education program, Monroe County Community School Corporation, 2018-date.

Member, Newark (NJ) STEAM Coalition Learning Ecosystem Steering Committee, 2017

Instructor, *Sustainable Energy: Exploring Wind and Solar Power* *Systems*, Maitland P. Simmons Summer Institute, Rowan University, July 2013.

Instructor, *Sustainable Energy: Exploring Wind and Solar Power Systems*, Maitland P. Simmons Summer Institute, The College of New Jersey, July 2012.

**MEDIA COVERAGE**

## “P12 Teachers Across Indiana Bring Global, Science Expertise to the Classroom Thanks to IU,” News at IU, August 7, 2024

## “In the Face of Global Warming, Students are Dreaming Up a Better Climate Future,” NPR, heard on *All Things Considered*, August 5, 2024

## “IU-Led Workshop Gives K12 Teachers Tools to Teach Climate Change in the Classroom” IU Environmental Resilience Institute, July 1, 2024

## “School of Education Brings Solar Eclipse Lessons to Educators and Learners Around the State” News at Indiana University, April 4, 2024

## “Teachers and Cancer Researchers Come Together to Prepare the Next Generation for Research Careers” Indiana University School of Education News, March 6, 2024

## “Educating for Environmental Change Workshops Help Science Educators Teach Climate Change” Indiana University School of Education News, September 19, 2023

## "Program Helps Expand Teacher Resources, Reach in Myanmar and Thailand” Indiana University School of Education News, September 15, 2023

“Better Climate Education on its Way with New Science Standards”, Indiana Public Broadcasting News, January 3, 2023

“ERI Brings Expanded Professional Development Opportunities to K12 Educators,” Environmental Resilience Institute News, October 26, 2022.

“New Washington Middle/High School STEM Program to Address Issues in Food Insecurity,” News and Tribune, September 3, 2021.

“Educating (Virtually) for Environmental Change,” In This Climate podcast, July 2021.

“Prepared for Environmental Change, An Earth Day Conversation,” IU Grand Challenges Webinar, April 23, 2021.

“IU Institute Recognizes Hoosier ‘Heroes’ for Environmental Work,” The Herald Times, April 19, 2021.

“PrimaryAI,” National Science Foundation Teaching and Learning Video Showcase, 2021.

Hamburger, M., Scribner, A. “Op-ed: Indiana Climate Change Education ‘Abysmal.’ Alaska got an ‘A.’ It’s not Politics.” Indy Star, December 3, 2020.

“Governor Holcomb Honors Six Organizations Including Cummins and IU with State’s Top Environmental Award,” WBIW.com, September 22, 2020.

“EfEC Teacher Workshops Bring Online Climate Curriculum to Indiana Teachers” Environmental Resilience Institute News, August 4, 2020.

“Educating for Environmental Change,” Mainichi Newspaper (Japan), October 2, 2019.

“Summer Science Institute Helps Indiana Educators Teach About Climate Change” Indiana Environmental Reporter, July 16, 2019.

“Loogootee Students Show Community Workforce Simulation,” Washington Times Herald, May 4, 2019.

“Loogootee Workplace Simulation Project,” WTHI TV, May 12, 2018.

“LHS Students Complete Workplace Simulation Project” Washington Tomes Herald, May 12, 2018.

“Loogootee High School Workplace Simulation Project a Success,” Indiana Public Media, May 12, 2018.

“What is WaterBotics,” featured on **PBS** program ***One on One*** to discuss WaterBotics underwater robotics curriculum, February 2015

“WaterBotics” National Science Foundation Teaching and Learning Video Showcase, 2015.

“WaterBotics Program Introduces Kids to Science,” NJTV News, September 1, 2015.

“Students Learn STEM Concepts at Stevens Water Robotics Camp,” New Jersey Tech Weekly, July 14, 2014.

“Hoboken Middle School Students Build Robots, Learn Programming” Jersey Journal, July 2014.

“Rocket Launch Contest at Liberty Science Center Draws Hundreds,” NJ.com, June 8, 2013.

**“**WaterBotics Program at Stevens Institute of Technology Engages Young Students in Science,” Nj.com, August 2, 2012.

**LICENSES, CERTIFICATIONS, AND COURSES**

Certified Teacher of Secondary Biological Science, New Jersey Department of Education

Certified Teacher of Secondary General Science, New Jersey Department of Education

Certified Teacher of Biology, Commonwealth of Pennsylvania

Certificate: R1 Robotics, Georgia Institute of Technology

Certificate: Social and Behavioral Responsible Conduct of Research, CITI Program

Completed Course: Current Issues in Aerospace Education, Oklahoma State University

**PROFESSIONAL ORGANIZATIONS**

National Science Teachers Association (NSTA)

International Technology and Engineering Educators Association (ITEEA)

American Society of Engineering Educators (ASEE)

Hoosier Association for Science Teaching, Incorporated (HASTI)

Concerned Scientists at Indiana University (CSIU)

**HONORS AND AWARDS**

Indiana Governor’s Award for Outstanding Environmental Education and Outreach, September 2020.

Princeton University Distinguished Secondary School Teaching Award, Nominee, 2008.

Judy and Josh Weston Award for Excellence in Teaching, 2007.

Glenfield School Teacher of the Year, 2007.

Selected to National Aeronautics and Space Administration (NASA) Network of Educator Astronaut Teacher (NEAT) Program, 2004. Invited participant to NASA’s Johnson (August 2004), Goddard (February 2005), and Kennedy (August 2005) Space Centers.

NASA, Finalist for Astronaut Candidate Class as a Mission Specialist, August 2003.