Lucas J. Wiese

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SUMMARY

PhD Candidate investigating AI ethics & safety, AI education & literacy, decision-making, and psycholinguistic patterns for measurement in human-AI interactions. Across my research, I pay attention to models of educational and moral theory, and am interested in how discourse theory shapes the decision-making processes. Have 4+ years of research experience in interdisciplinary collaborative teams, project management, and leadership. Expertise in synthesizing technical, social, and human-centered perspectives for mixed-methods research.

EDUCATION

MS

PhD Purdue University, Technology

GPA: 4.00/4.00 May 2026

Certifications: Advanced Methodology

Purdue University, Computer & Information Technology

Dec 2024

 "Factors That Promote and Inhibit Advanced Technology Adoption in Small and Medium Manufacturing Firms"

BA Purdue University, Philosophy

GPA: 3.76/4.00

BS Purdue University, Cybersecurity

May 2022

• Certificate: Cornerstone for interdisciplinary communication and creative thinking

PUBLICATIONS

- Lucas J. Wiese, Sonali Subbu Rathinam, Daniel S. Schiff, Matthias Oschinski, Bryan DeWitt. (2025). AI Ethics and Governance in the Job Market: Trends, Skills, and Sectoral Demand. IEEE Transactions on Technology and Society. https://doi.org/10.1109/TTS.2025.3567143
- 2. *Lucas J. Wiese*, Daniel S. Schiff. (2025). **Discourse Before Doctrine: The Category Error at the Heart of AI Ethics Education**. *Forthcoming* | *Handbook on Critical Studies of Artificial Intelligence and Education*
- 3. *Lucas J. Wiese*, Indira Patil, Daniel S. Schiff, Alejandra J. Magana. (2025). **AI Ethics Education: A Systematic Literature Review**. *Computers & Education: Artificial Intelligence*, *8*, 100405.
- 4. *Lucas J. Wiese*, Alejandra J. Magana, Khalil El Breidi, Ali Shakouri. (2025). **Factors That Promote and Inhibit Advanced Technology Adoption in Small and Medium Manufacturing Firms**. *Sustainability*. *17*(7), 2981.
- 5. *Lucas J. Wiese*, Daniel S. Schiff, Tatiana Ringenberg, Alejandra J. Magana. (2025). **Reliable LLM Analysis Workflow** as a Topic Modeling Alternative: Case Study on the Norms of AI Professionals. *Under Review*
- 6. Lucas J. Wiese, Hector E. Will Pinto, Alejandra J. Magana. (2024). Undergraduate and Graduate Students' Conceptual Understanding of Model Classification Outcomes Under the Lens of Scientific Argumentation. Computer Applications in Engineering Education
- 7. Lucas J. Wiese, Alejandra J. Magana. (2024). Teaching Applied Ethics to Students by Encouraging Intuitive Reflection and Deliberate Discourse. 2024 ASEE Annual Conference & Exposition
- 8. *Lucas J. Wiese*, Alejandra J. Magana. (2024). **A Department's Syllabi Review for LLM Considerations Prior to University-standard Guidance**. *2024 ASEE Annual Conference & Exposition*
- 9. Eunseob Kim, *Lucas J. Wiese*, Hector Will Pinto, Alejandra J. Magana, Martin Jun. (2023). **An Experiential Learning Approach to Industrial IoT Implementation of Smart Manufacturing through Coursework and University-Industry Partnerships.** *Journal of Engineering Technology.* 40(2), 8-18
- 10. Xiaojin Liu, Hugo Castellanos, *Lucas J. Wiese*, Alejandra J. Magana. (2023). **Exploring Machine Learning Methods** to Identify Patterns in Students' Solutions to Programming Assignments. 2023 IEEE FIE

- 11. Ted J. Fiock, Jonathan Mohn, John Mack, Charilaos Mousoulis, Eunseob Kim, *Lucas J. Wiese*, Martin Jun, Alejandra J. Magana, Ali Shakouri. (2023). **Data Analytics Short Courses for Reskilling and Upskilling Indiana's Manufacturing Workforce.** *ASEE Annual Conference & Exposition*
- 12. Lucas J. Wiese, Daniel S. Schiff, Alejandra J. Magana. (2023). Being Proactive for Responsible AI: Analyzing Multiple Sectors for Innovation via Systematic Literature Review. (extended abstract). IEEE-Ethics 2023

WORK EXPERIENCE

Purdue University, Research Scientist

Aug 2022 - present

Researcher for the Research on Computing in Engineering and Technology Education Lab (ROCkETEd) and the Governance and Responsible AI Lab (GRAIL).

- Leadership in interdisciplinary collaborative teams on AI, ethics, education, and LLM safety and alignment
- Written 3 research proposals and awarded funding for 2 projects as lead researcher
- Manage lab operations for ROCkETEd (CIT) and PhD affiliate for GRAIL (Political Science)
- · Consulted on human, ethics, and safe design principles for AI in the manufacturing sector
- · Mentored multiple undergraduate and junior graduate students in their research agenda

Purdue University, Instructor

Aug 2023 – present

- Lecturer as guest domain expert in Applications in Data Science (2x), Cyberlaw and Ethics (2x), and Policy, Regulation, and Globalization in IT (1x)
- Designed course material, instructional pedagogy, and active learning assignments on AI ethics, data ethics, decision theory, philosophy of AI, and career trajectories of AI in the workforce

Entara Corporation, IT/Systems Engineer Resident

Chicago, IL (remote)

Most consecutive 5-star client ratings at firm. Fast-paced problem solving environment. Computer and network engineering servicing client needs in a multi-industry environment

Jan 2021 – Aug 2021

RSA Security, Shift Manager, Sr. Security Anti-fraud Analyst

West Lafayette, IN

 Managed global incident response environment. Mitigated phishing, malware, IP infringement, and DNS attacks with international security team Jan 2019 - Jan 2021

Purdue University, Undergraduate Research Assistant

2019-2020 & 2021-2022

- Conducted needs assessment on well-being of digital forensics professionals to promote response capacity for cybercrime
- Developed educational research activity to understand the mental models behind learning neural network architecture

Man, Death, Ethics, Copyeditor on Book

Jan 2022 - May 2022

Authored by W. W. Wasielewski, published by Ridero

Wyzant, Online Professional Tutoring, Cybersecurity and IT Tutor

remote

 Principled tutoring and instructional material for U.S.-based graduate and undergraduate students Jan 2022 - May 2022

GRANTS AND AWARDS.

Innovation Grant 2024

Awarded by Purdue Office of the Provost, Innovation Hub. No. IH-IG-24007. Lead researcher and designer for *Applied Ethics in Al within the Context of Cybersecurity Education*. **\$40,000**.

High-impact Review Paper Grant

2024

Awarded by Purdue Office of Research. Lead researcher and project coordinator for *Al Ethics Education: A Systematic Literature Review.* **\$10,000**.

Dean's Travel Grant 2024

Awarded by Purdue Polytechnic Institute. \$300.

CIT Graduate Travel Grant 2024

Awarded by Purdue Polytechnic Institute. \$250.

Best Paper 2023

Awarded by Purdue Literary Awards category in 'exploring the impact of science and technology on society and culture'. Wrote *Reframing Ethics for Societal Change: Opening Ethics to Deploy Ethical Reasoning.* **\$100**

Best Paper 2023

Awarded by American Society for Engineering Education division manufacturing. Second author for *An Experiential Learning Approach to Industrial IoT Implementation of Smart Manufacturing through Coursework and University-Industry Partnerships*.

Undergraduate Research Scholarship

2020

Awarded by Purdue Office of Undergraduate Research. Project entitled *Needs Assessment on the Mental Health and Wellbeing of Digital Forensics Investigators and Examiners in Law Enforcement.* **\$500**.

TEACHING AND SERVICE

CNIT 484 - Applications in Data Science, Guest Instructor

Spring 2025, Spring 2024

• Instructional design, lecture, and activity on AI ethics, ethical data acquisition and management, and decision-making for AI developers

CNIT 371 - Cyberlaw and Ethics, Guest Instructor

Fall 2024, Spring 2024

• Instructional design, lecture, and activity on AI ethics, history, and philosophy of AI, AI in the workforce, ethical decision-making with AI technology

CNIT 320 - Policy, Regulation, and Globalization in IT, Guest Instructor

Fall 2023

• Instructional design, lecture, and activity on AI ethics and professional AI ethical problem-solving

Problematizing Education and Digital Technology, Speaker

Spring 2025

- Presentation on "Teaching the Ethics of AI" to the local community.
- Co-author on global report on Problematizing Education and Digital Technology

ROCkETEd Lab, Student Lab Manager & Graduate Researcher

Fall 2022 - Present

- Doctoral researcher, project lead, and collaborator in the Research on Computing in Engineering and Technology Education Lab
- · Mentor for undergraduate and junior graduate students
- Manage student lab operations

GRAIL Center, PhD Affiliate and Project Lead

Fall 2022 - Present

- Doctoral researcher, project lead, and collaborator in the university center, Governance and Responsible AI Lab
- Mentor for undergraduate and junior graduate students

NIST AISIC, Contributor

Spring 2024 - Present

- · Member of NIST AI Safety Institute Consortium on behalf of GRAIL
- Contribute to the Risk Management for Generative AI task force

Presentations _

talk *Teaching the Ethics of AI: Guiding the Next Generation.* Critical Studies of Education and Technology 2025: Problematizing Education and Digital Technology. West Lafayette, IN. (February 19, 2025).

talk Reframing Ethical Action in Al Education : An Exploratory Study for Discourse as a Measure and Method. At 2024 Society for Ethics Across the Curriculum. Clemson, SC (October 4, 2024)

talk *Teaching Applied Ethics to Students by Encouraging Intuitive Reflection and Deliberate Discourse.* At 2024 ASEE Annual Conference & Exposition. Portland, OR (June 26, 2024).

talk A Syllabi Review of ChatGPT in the Classroom Prior to University-standard Guidance. At 2024 ASEE Annual Conference & Exposition. Portland, OR (June 24, 2024).

poster Defending Ethics Positions in Professional Al dilemmas: Students and a Pedagogical Framework. At Purdue RIA Future of Work and Learning Spring 2024 Student Poster Symposium. West Lafayette, IN (April 18, 2024).

talk Applied Ethics Goes Deeper Than Ethics-in-Practice: A Framework for Ethics Education and Action. At 2024 Association for Practical and Professional Ethics conference. Cincinnati, OH (Feb 24, 2024).

poster An Experiential Learning Approach to Industrial IoT Implementation of Smart Manufacturing through Coursework and University-Industry Partnerships. At 2023 ASEE Annual Conference & Exposition. Baltimore, MD (June 26, 2023).

poster *Data Analytics Short Courses for Reskilling and Upskilling Indiana's Manufacturing Workforce*. At 2023 ASEE Annual Conference & Exposition. Baltimore, MD (June 26, 2023).

poster An Experiential Learning Approach to Industrial IoT Implementation of Smart Manufacturing through Coursework and University - Industry Partnerships. At SMART Industry Day 2023. Purdue Birck Nanotechnology Center (May 11, 2023).

talk *An Experiential Learning Approach to Industrial IoT Implementation of Smart Manufacturing*. At SMART Industry Day 2023. Purdue Birck Nanotechnology Center (May 11, 2023).

poster Being Proactive for Responsible AI: Analyzing Multiple Sectors for Innovation via Systematic Literature Review. At IEEE Ethics - 2023. West Lafayette, IN (May 19, 2023).

poster A Computational Cognitive Apprenticeship to Promote IoT and Al Learning for Workforce Development in Smart Manufacturing. At Purdue RIA Future of Work and Learning Spring 2022 Student Poster Symposium. West Lafayette, IN (April 26, 2022).

poster *A Needs Assessment on the Mental Health for Digital Forensic Examiners*. At 2021 Purdue Undergraduate Research Conference. Virtual (November 15, 2021).

REVIEWER

- Frontiers in Education (2025)
- IEEE Technology & Society Magazine (2024)
- European Journal of Engineering Education (2024)
- Computer Applications in Engineering Education (2024)
- 2024 American Society for Engineering Education Annual Conference (2023)