

MARY ANNE SMART

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Assistant Teaching Professor

Department of Computer Science

Purdue University

EDUCATION

University of California San Diego Doctor of Philosophy in Computer Science Dissertation Title: Understanding and Improving Privacy Communication Advisor: Kristen Vaccaro	2024
University of California San Diego Master of Science in Computer Science	2021
Indiana University Bachelor of Science in Computer Science, Bachelor of Science in Math, Bachelor of Arts in Spanish	2017

PROFESSIONAL APPOINTMENTS

Purdue University - Assistant Teaching Professor in Department of Computer Science	2024 - Present
University of California San Diego - Graduate Research Assistant / Instructional Assistant	2018 - 2024
Columbia University - Visiting Ph.D. Student	2022
Indiana University - Undergraduate Research Assistant	2017
Qualtrics - Engineering Services Fullstack Software Developer	2017 - 2018
Proofpoint - Software Engineering Intern	2016
Indiana University - Peer-Led Team Learning Leader	2014 - 2016

TEACHING EXPERIENCE

Purdue University

· CS 441: Data Science Capstone (WL)	Spring 2026
· CS 373: Data Mining & Machine Learning, co-taught with Ruqi Zhang & Rajiv Khanna (WL)	Spring 2026
· CS 243: Artificial Intelligence Basics (Indianapolis)	Fall 2025
· CS 290: Usable S&P, co-taught with Abdullah Imran (Indianapolis)	Fall 2025
· CS 182: Foundations of Computer Science (Indianapolis)	Fall 2025
· CS 182: Foundations of Computer Science (Indianapolis)	Spring 2025
· CS 182: Foundations of Computer Science (WL)	Fall 2024

University of California San Diego

· Intro to Artificial Intelligence: Probabilistic Reasoning (Associate Instructor)	Summer 2023
· Critical Analysis in Computing (TA)	Spring 2023
· Software Tools & Techniques Lab (TA)	Winter 2023
· Human-AI Interaction (TA)	Fall 2021, Fall 2022

Indiana University

· Introduction to Computer Science (Peer-Led Team Learning Leader)	Fall 2014
· Discrete Structures for Computer Science (Peer-Led Team Learning Leader)	Fall 2015
· Mathematical Foundations of Informatics (Peer-Led Team Learning Leader)	Spring 2015, Spring 2016

RESEARCH INTERESTS

Privacy & Security, Human-Computer Interaction, Education

PEER-REVIEWED PUBLICATIONS

Cheyenne Huggins, **Mary Anne Smart**. Building Belonging and Self-Efficacy Through a Bridge Program. *Proceedings of the 2026 Conference on Research on Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, 2026.

Mary Anne Smart, Priyanka Nanayakkara, Rachel Cummings, Gabriel Kaptchuk, and Elissa M. Redmiles. Models Matter: Setting Accurate Privacy Expectations for Local and Central Differential Privacy. *Proceedings on Privacy Enhancing Technologies Symposium (PoPETS)*, pp. 653-678, 2025.

Priyanka Nanayakkara, **Mary Anne Smart**, Rachel Cummings, Gabriel Kaptchuk, and Elissa M. Redmiles. What Are the Chances? Explaining the Epsilon Parameter in Differential Privacy. In *32nd USENIX Security Symposium (USENIX Security 23)*, pp. 1613-1630. 2023.

Mary Anne Smart, Dhruv Sood, and Kristen Vaccaro. Understanding Risks of Privacy Theater in Differential Privacy. *Proceedings of the ACM on Human-Computer Interaction 6*, pp. 1-24. Computer-Supported Cooperative Work and Social Computing (CSCW), 2022.

Zachary Izzo, **Mary Anne Smart**, Kamalika Chaudhuri, and James Zou. Approximate Data Deletion from Machine Learning Models: Algorithms and Evaluation. In *International Conference on Artificial Intelligence and Statistics*, pp. 2008-2016. Proceedings of Machine Learning Research (PMLR), 2021.

INVITED TALKS

“Fundamental AI/ML/DM learning approaches.” Guest lecture for SCI 195 (AI Bytes) at Purdue (2026)

“Beyond the Code.” Guest speaker for Purdue Indy’s Computer Science Women’s Network (2026)

“Introduction to Linked Lists.” Guest lecture at University of Illinois Chicago (2023)

“Lessons Learned in Communicating Differential Privacy to Data Subjects” Lightning talk at Symposium on Usable Privacy and Security (2023)

“Conceptualizations of Privacy in CS Syllabi.” Lightning talk at Consortium for Computing Sciences in Colleges (CCSC) Southwest Region Conference (2023)

“Human-Computer Interaction Research.” Invited talk for High School Women in STEM Club (2023)

“Understanding and Improving Privacy Communication.” Speaker for UC San Diego’s HCI Seminar (2023)

“Differential Privacy in Practice.” Guest lecture at Northwestern, co-taught with Priyanka Nanayakkara (2023)

“Differential Privacy in Practice.” Guest lecture at Northwestern, co-taught with Priyanka Nanayakkara (2022)

“Limitations of Consent for Ethical Data Collection.” Speaker at Data Ethics and Justice Workshop for UC Love Data Week (2022)

“Data Feminism Discussion: From Understanding Algorithms to Understanding Context.” Invited to lead a discussion with the Socially Responsible Tritons group at UCSD (2020)

ORGANIZED EVENTS

Co-led “Improving AI Education” breakout discussion session at the 2022 WiML Un-Workshop

Co-led “Data Feminism and Machine Learning” breakout discussion at the 2020 WiML Un-Workshop

Co-organized Privacy Preserving Machine Learning Workshop at the 2020 Conference on Neural Information Processing Systems (NeurIPS)

Co-organized Privacy in Machine Learning Workshop at the 2019 Conference on Neural Information Processing Systems (NeurIPS)

MENTORSHIP

Purdue Students

2024 - Present

- Matthew Galej (undergraduate student)
- Cheyenne Huggins (BS/MS student)

Horizons Faculty Mentorship Program

2024

- Met with undergraduate CS student three times for “Glow and Grow sessions” to discuss career goals, stress management, academic success, etc.
- Participated in various mentorship program events with first-generation and/or low-income Purdue students

UC San Diego Students

2020 - 2024

- Mentored and collaborated with undergraduate and junior graduate students, including: Dzhangir Bayandarov, Aaron Broukhim, Emily Jones, Stephanie Li, Tyus Liu, Baljot Sekhon, Dhruv Sood, and Stephen Tan
- Published “Understanding Risks of Privacy Theater in Differential Privacy” with undergraduate Dhruv Sood as a co-author

Graduate Women in Computing Mentorship Program

2019 - 2024

- Participated as a student mentor
- Met regularly with students to discuss classes, research, etc.

Explore Computer Science Research Program

2020

- Mentored a small group of local community college students
- Help students learn about nearest neighbor classification, Jupyter notebooks, and data processing in Python
- Discussed the “coded gaze” and related issues that arise when building and deploying AI systems

INSTITUTIONAL SERVICE

Presentation Reviewer, Purdue Undergraduate Research Conference	Spring 2025, Fall 2025, Spring 2026
Faculty Advisor for InnovateHer	Spring 2026 – Present
Faculty Advisor for Computer Science Undergraduate Student Board	Fall 2025 – Present
CS Undergraduate Study Committee, Purdue University	Fall 2024 – Present

PROFESSIONAL SERVICE

- Reviewer for VIS (2026)
- Reviewer for RESPECT (2026)
- Reviewer for Interacting with Computers (2026)
- Program Committee for USEC (2026)
- Program Committee for IUI (2025)
- Reviewer for CHI (2024)
- Reviewer for CSCW (2024)
- Reviewer for CHI Late-Breaking Work (2023)
- Volunteer for Black in AI and Queer in AI joint social at ICML (2022)
- Program Committee for WIPS (2022)
- Reviewer for DIS (2022)
- Program Committee for ICWSM (2022)
- Reviewer & Volunteer for NeurIPS Queer in AI Workshop (2021)

Reviewer for CSCW Posters (2021)

Reviewer for NeurIPS Resistance AI Workshop (2020)

Reviewer NeurIPS Retrospective Workshop (2020)

Volunteer for GLBIO (2017)

HONORS & AWARDS

Rising Stars in EECS (2023): selected to participate in a workshop for scholars from historically marginalized genders who are interested in academic careers

Doctoral Award for Excellence in Contributions to Diversity (2023): awarded annually to one doctoral student by UCSD's CSE department

Phi Beta Kappa Member (2017): academic honor society

SWSIS Scholar (2016): national scholarship awarded by the Scholarship for Women Studying Information Security program on behalf of ACSA, CRA-W, and HPE

Ruth E. Gilliat Memorial Scholarship (2016): awarded by IU to a student in mathematics who has performed at the highest level in a rigorous curriculum

Aruna & Anurag Mendhekar Scholarship (2016): awarded by IU's School of Informatics and Computing

PROFESSIONAL DEVELOPMENT & TRAINING

IMPACT Week (2025, 2026)

Council for Aid to Education (CAE) Critical Thinking Institute (2025)

Faculty Success Program (NCFDD) (2025)

Certificate of Foundations in College Teaching (2025)

QPR Suicide Prevention (2024)

Cultural Competence in Computing (3C) Fellow (2021)