

Priscila Santiesteban

Computer Science and Engineering • University of Michigan
2909 Bob and Betty Beyster Building, 2260 Hayward Street Ann Arbor, MI 48109

✉ pasanti@umich.edu | 🏠 <https://pasantiesteban.github.io/> | 🌐 <https://github.com/pasantiesteban>

Academic Interests: As both an educator and a lifelong learner, I work to refine my teaching through classroom experience, educational research, reflection, and student feedback. I am excited to teach across the undergraduate computer science curriculum, with particular interests in introductory programming, data structures and algorithms, and software engineering.

My research spans the human aspects of software engineering. I investigate the cognitive, behavioral, and social factors that influence programming and software development through rigorous empirical studies, with the goal of improving software engineering practice and informing computer science pedagogy.

Education

Ph.D. in Computer Science and Engineering

Expected May 2027

University of Michigan

Ann Arbor, MI

ADVISOR: Westley Weimer, COMMITTEE MEMBERS: Ioulia Kovelman, Amir Kamil, Madeline Endres

M.S. in Computer Science and Engineering

May 2025

University of Michigan

Ann Arbor, MI

B.S. in Computer Science and Physics (Mathematics Minor)

May 2021

Coe College

Cedar Rapids, IA

Teaching Experience

Instructor of Record

Fall 2025–Winter 2026

Software Engineering, Upper-Level Undergraduate

University of Michigan

OFFERINGS	Winter 2026	244 students	Evaluation Avg.: 4.85/5.00, University-Wide: 4.77/5.00
	Fall 2025	244 students	Evaluation Avg.: 4.70/5.00, University-Wide: 4.75/5.00

FORMAT	Taught two concurrent sections, one in person and one serving asynchronous remote students.
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CONTRIBUTIONS

- Designed and delivered lectures in undergraduate software engineering, including developing new instructional materials and in-class activities.
- Created reading-comprehension quizzes to encourage engagement with assigned readings.
- Developed grading rubrics for remote exams to assess authentic student understanding in the presence of generative AI.
- Revised programming assignments to replace obsolete tools and incorporate responsible generative AI use.
- Produced instructional videos explaining course setup, organization, and expectations.
- Refined hybrid participation activities using student feedback to support equitable participation by remote and in-person students.
- Managed a teaching team of four teaching assistants, four graders, and one instructional staff member.

Graduate Student Instructor (Teaching Assistant)

Fall 2024

Software Engineering, Upper-Level Undergraduate

University of Michigan

CONTRIBUTIONS

- Led discussion sections of up to 14 students.
- Delivered a guest lecture to 290 students.
- Held office hours and supported grading and assessment.

CONTRIBUTIONS

- Developed guided lecture notes for a graduate programming languages course with 17 students. This strategy created organizational scaffolding that students identified as helpful for maintaining engagement during lectures.

CONTRIBUTIONS

- Led weekly laboratory sessions for an undergraduate computer science course, providing one-on-one guidance to students as they worked through programming assignments.

Teaching Development

WORKSHOPS
(WINTER 2024) Completed five workshops through the Michigan Center for Research on Learning and Teaching, including: “Are They Getting It?: Low-Stakes Ways to Gauge Student Learning”, “Making Groupwork Work”, “Strategies for Leading Office Hours in Engineering Courses”, “Introduction to Neurodivergence: Strategies for Engineering Instructors”, and “The Importance of Embracing Failure in Learning”.

Peer-Reviewed Publications

Seven peer-reviewed publications: Three conference papers (ICSE, ESEC/FSE) including a distinguished paper award at ICSE, three journal manuscripts (TSE), and one peer-reviewed workshop paper. Three papers with undergraduate advisees, including two with student first authors. † Indicates undergraduate mentee.

Conference Proceedings (3)

- SEET@ICSE '26** **P. Santiesteban**, **E. Shedden**†, M. Endres, and W. Weimer. “An Empirical Study of Anonymous, Unmoderated Online Peer-to-Peer Programming Tutoring Conversations.” In *Proceedings of the Software Engineering Education and Training Track at the International Conference on Software Engineering* (30% acceptance rate), 2026.
🌐 <https://doi.org/10.1145/3786580.3786958>
- ICSE '24** H. Ahmad, M. Endres, K. Newman, **P. Santiesteban**, E. Shedden, and W. Weimer. “Causal Relationships and Programming Outcomes: A Transcranial Magnetic Stimulation Experiment.” In *Proceedings of the International Conference on Software Engineering* (15% acceptance rate), 2026.
🏆 Distinguished Paper Award (10% of accepted papers).
🌐 <https://doi.org/10.1145/3597503.36390>
- ESEC/FSE '21** C. Wong, **P. Santiesteban**, C. Kästner, and C. Le Goues. “VarFix: balancing edit expressiveness and search effectiveness in automated program repair.” In *Proceedings of the 29th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering* (39% acceptance rate), 2021.
🌐 <https://doi.org/10.1145/3468264.3468600>

Journal Manuscripts (3)

- TSE '26** **A. Wei**†, **P. Santiesteban**, and W. Weimer. “Sweat the Details: Exercise Breaks and AI Assistance in Code Summarization.” To appear in a volume of *IEEE Transactions of Software Engineering*., 2026.
🌐 <https://doi.org/10.1109/TSE.2026.3716079>
- TSE '24** **D. Hu**†, **P. Santiesteban**, M. Endres, and W. Weimer. “Towards a Cognitive Model of Dynamic Debugging: Does Identifier Construction Matter?” In *volume 50 issue 11 of IEEE Transactions of Software Engineering*, 2024.
🌐 <https://doi.org/10.1109/TSE.2024.3465222>

TSE '23 **P. Santiesteban**, Y. Huang, W. Weimer, and H. Ahmad. "CirFix: Automated Hardware Repair and its Real-World Applications" In *volume 49 issue 7 of IEEE Transactions of Software Engineering*, 2023.
 <https://doi.org/10.1109/TSE.2023.3269899>

Workshop Proceedings

GE@ICSE '22 **P. Santiesteban**, M. Endres, and W. Weimer. "An Analysis of Sex Differences in Computing Teaching Evaluations" In the *3rd Workshop on Gender Equality, Diversity, and Inclusion in Software Engineering*, 2022.
 <https://doi.org/10.1145/3524501.3527604>

Student Mentoring

Amy Wei **Winter 2025 - Winter 2026**
Undergraduate Research University of Michigan
 Advised and mentored on a research project on the impact of physical exercise breaks and AI assistance on code summarization performance. A full journal paper where Amy is first author is accepted at TSE 2026.

Emma Shedden **Spring 2024 - Summer 2025**
Undergraduate Research University of Michigan
 Assisted on a research project developing a mathematical model of anonymous online peer-to-peer tutoring interactions. A full conference paper where Emma is co-author is accepted at SEET@ICSE 2026.

Danniell Hu **Winter 2023 - Fall 2023**
Undergraduate Research University of Michigan
 Advised on a research project investigating the neural correlates of dynamic debugging using medical imaging. A full journal paper where Danni is first author is accepted at TSE 2024.

Joel Estrada and Syed Khan **Winter 2026**
Senior Independent Study University of Michigan
 Supervised both undergraduate students through completion of a senior independent study project focused on applying machine learning to finance. Both students successfully completed the project and graduated.

Service

Peer Review
Journal Manuscript Reviewer **Fall 2025**
Publishing Research Quarterly (Springer Nature)
 Reviewed a submitted manuscript in publishing and literary studies.

University Service
Research Workshop Mentor **Fall 2025**
University of Michigan
 Mentored approximately 50 incoming undergraduate students through a research workshop.

Judge, Undergraduate Research Symposium **Winter 2026**
University of Michigan
 Evaluated undergraduate 25 student research presentations.

Graduate Recruitment Panelist **Winter 2022, Winter 2023**
University of Michigan
 Participated in two panel discussions for admitted Computer Science and Engineering Ph.D. students, answering questions about research, graduate life, and the doctoral program.

Community Resources
Maintainer, CS Graduate School Application Guide **Fall 2025 - Present**
Publicly Online
 Co-developed, deployed, and maintain a publicly available educational resource to support prospective student

applicants to computer science graduate programs. The guide synthesizes faculty perspectives, graduate student experiences, application advice, and curated resources covering Master’s and Ph.D. admissions. Since its launch in late 2025, the guide has served users across five countries. 🌐 <https://csguides.github.io/grad-school-application-guide/>

Funding and Grants

Grant Proposal Contributor	2022
<i>“Understanding the Relationship Between Spatial Reasoning and Programming Using TMS and MRI”</i>	Awarded: \$17,970
Contributed to the writing, editing, and refinement of a research grant proposal supporting interdisciplinary research on neurostimulation, medical imaging, and programming outcomes.	

Awards and Honors

Outstanding Graduate Student Instructor Award	Winter 2026
<i>University of Michigan, Computer Science and Engineering</i>	
Awarded for excellence in undergraduate teaching during my appointment as instructor of record, based on student and faculty evaluations.	
National Science Foundation Graduate Research Fellowship (GRFP)	2023-2026
<i>National Science Foundation</i>	\$147,000 Award
Rackham Merit Fellowship	2021-2023
<i>University of Michigan</i>	\$91,200 Award
Clark Merit Scholarship	2020-2021
<i>Coe College</i>	\$53,000 Award
National Science Foundation Research Experiences for Undergraduates (REU)	Summer 2019, Summer 2020
<i>Carnegie Mellon University (2020) and Cornell University (2019)</i>	

Miscellaneous

LANGUAGE	Native English, Native Spanish
CITIZENSHIP	United States