Brendan Henrique

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EDUCATION

2021–Present	**University of California, Berkeley** Ph.D. Student, Learning Sciences and Human Development *Advisor: Prof. Michelle Wilkerson*
2021	**Loyola Marymount University** Masters of Arts in Urban Education *Advisor: Prof. Maryann Krikorian*
2019	**University of California, Berkeley** Bachelors of Arts in Cognitive Science, Minor in Education (High Honors) *Thesis Advisors: Prof. Michael Ranney and Prof. Glynda Hull*

RESEARCH APPOINTMENTS

Graduate Student Researcher — August 2025 – Present
Electrical Engineering and Computer Sciences — *UC Berkeley*

- Advised by Prof. Lisa Yan for the NSF-funded project: *CUE-T: A partnership to scale inclusive undergraduate data science through an interdisciplinary, introductory course in computing and social science.*
- Lead a curriculum cataloging and mapping project to analyze the integration of disciplinary content and computing skills across multiple course iterations.
- Supervise two undergraduate research assistants in data collection and qualitative analysis of social science-centered data science curricula.

Graduate Researcher — January 2023 – August 2025
Transformative Learning Technologies Lab — *UC Berkeley and Columbia University*

- Advised by Prof. Michelle Wilkerson and Dr. Tamar Fuhrmann for *From Access to Sustainability*, an NSF-funded project investigating ways to foster sustained computational modeling practices in K-12 science classrooms.
- Led a research team to design and develop a biology unit where middle school students utilize computer code to model mechanistic reasoning in photosynthesis.

Undergraduate Researcher — Fall 2017 – Spring 2019
Hull Research Group — *UC Berkeley*

- Advised by Prof. Glynda Hull to study how middle school students used virtual reality to develop 360-degree stories; analyzed student videos for emergent challenges with VR story-telling using a human-computer interaction framework.
- Developed and implemented a digital literacy curriculum using the social network Space2Cre8, utilizing qualitative methods to analyze creative processes in online video-mediated interaction.

Undergraduate Research Lab Manager — Spring 2018 – Spring 2019
Design for Equity Lab — *UC Berkeley*

- Advised by Andrew Estrada-Phuong to direct a team of undergraduate student researchers in the application of statistical tools toward studying the effectiveness of an adaptive equitable pedagogy framework.
- Utilized design-based research to perform multivariate regression models on classroom data to inform instructors on supporting students' learning needs.

Awards

2024	**SIGCSE Graduate Student Competition Winner**
	First place winner of the ACM SIGCSE research competition.
2021	**Loyola Marymount Library Graduate Research Award**
	Recognized for excellence in Master's thesis research and comprehensive engagement with university library collections.
2020	**WCCUSD 100 Teachers Award**
	Awarded by administrators, families, and colleagues to the top 100 educators in the district out of 1,700 teachers.
2020	**Outstanding Graduate Student Instructor Award**
	Awarded to the top 10 percent of graduate student instructors.

Grants and Fellowships: $56,778 Total

2021–2025	Pinto-Fialon Fellowship, UC Berkeley ($50,000)
2025	Barbara White Bequest Annual Meeting Travel Grant ($1,550)
2025	Graduate Division Conference Travel Grant, UC Berkeley ($1,500)
2025	Graduate Assembly Professional Development Award, UC Berkeley ($500)
2024–2026	Berkeley School of Education Travel Grant, UC Berkeley ($900)
2024	Student Opportunity Fund, UC Berkeley ($900)
2024	ASUC Academic Opportunity Fund, UC Berkeley ($500)
2024	Student Research Competition First Place, ACM SIGCSE ($500)
2017	Cal Teach Koshland Excellence-in-Teaching Award/Scholarship ($928.57)

Manuscripts Currently Under Review

1. Wagh, A., Eloy, A., **Henrique, B.**, Rosenbaum, L. F., Fuhrmann, T., Blikstein, P., & Wilkerson, M. (Under review, revise & resubmit). Code reflections: Leveraging students' own code to effectively integrate CS practices & disciplinary learning. *Computer Science Education.*

Peer-Reviewed Conference Proceedings

1. **Henrique, B.**, Yan, L., Cano Low, F. G., & Arriaga, F. (2026, June). *IUSE-CUE: A collaboratively designed, interdisciplinary introduction to computational thinking in data science* [Conference paper]. Proceedings of the American Society for Engineering Education (ASEE) Annual Conference & Exposition: NSF Grantee Poster Session, Charlotte, NC, United States.

2. **Henrique, B.** (2025, February). *Exploring critical CS teacher education program design through a science and technology studies approach* [Conference paper]. Special Interest Group in Computer Science Education Symposium, Pittsburgh, PA, United States.

3. Wagh, A., Rosenbaum, L. F., Eloy, A., Fuhrmann, T., **Henrique, B.**, Blikstein, P., & Wilkerson, M. H. (2025). Designing for discourse: Enacting responsive teaching through code reflections in a computational modeling unit. In A. Rajala, A. Cortez, R. Hofmann, A. Jornet, H. Lotz-Sisitka, & L. Markauskaite (Eds.), *Proceedings of the 19th International Conference of the Learning Sciences - ICLS 2025* (pp. 377–385). International Society of the Learning Sciences.

4. **Henrique, B.** (2024, June). *"An act of a revolution": Critical learning trajectories in a pre-service teacher computer science course* [Conference paper]. International Society of the Learning Sciences (ISLS), Buffalo, NY, United States. https://doi.org/10.22318/icls2024.115107

Peer Reviewed Conference Presentations

1. Fuhrmann, T., & **Henrique, B.** (2026, August). From Code to Chloroplasts: Modeling as a Language for Mechanistic Reasoning in Science. In *Mechanistic reasoning in biology: Exploring processes, challenges, and educational value* [Symposium]. Conference of European Researchers in Didactics of Biology (ERIDOB), Ljubljana, Slovenia.

2. Fuhrmann, T., **Henrique, B.**, & Blikstein, P. (2026, June). *When code shapes scientific language: Speaking photosynthesis in code* [Poster presentation]. International Society of the Learning Sciences (ISLS) Annual Meeting, Irvine, CA, United States.

3. Fuhrmann, T., **Henrique, B.**, Eloy, A., Rosenbaum, L., Wagh, A., Blikstein, P., & Wilkerson, M. (2026, April). *From code to chloroplasts: Speaking about photosynthesis through computational modeling* [Paper presentation]. National Association for Research in Science Teaching (NARST) Annual International Conference, Seattle, WA, United States.

4. **Henrique, B.** (2026, April). *Designated identity narratives: Teacher philosophy statements in critical CS education* [e-Lightning Ed-Talk and Poster presentation]. American Educational Research Association (AERA) Annual Meeting, Los Angeles, CA, United States.

5. **Henrique, B.**, & Fischer, K. (2026). A statewide analysis of ethics and social impact in the CS teacher preparation pipeline. In *Proceedings of the 57th ACM Technical Symposium on Computer Science Education V.2* (pp. 1355–1356). Association for Computing Machinery. https://doi.org/10.1145/3770761.3777352

6. **Henrique, B.** (2024, April). *Understanding How Elementary School PSTs Integrate CS Concepts Into Their Teaching Practice* [Roundtable]. American Education Research Association Annual Meeting, Philadelphia, PA, United States.

7. **Henrique, B.** (2024, April). *Exploring K-12 Teachers' Trajectories of Engagement with Critically Conscious Computing* [Graduate Student Research Competition]. Special Interest Group in Computer Science Education Symposium, Portland, OR, United States. **First Place Winner**

8. Fuhrmann, T., & **Henrique, B.** (2023, October). *MoDa: Exploring Computational Modeling from a Constructionist Perspective* [Conference Workshop]. Constructionism, New York, NY, United States.

9. **Henrique, B.**, & Whittle, R. (2019, March). *Voicing the Local: University-Community Partnerships in the Digital Age* [Conference Session]. UC Links International Conference, Berkeley, CA, United States. https://uclinks.berkeley.edu/uc-links-international-conferences/2019-uc-links-international-conference

Media/Press

1. Schwartz, S. (2021, November 23). COVID-19 is a science lesson waiting to happen. *Education Week*. https://www.edweek.org/teaching-learning/covid-19-is-a-science-lesson-waiting-to-happen/2021/11

2. Johnson, S. (2020, December 15). One more challenge for California teachers in distance learning: All new science curriculum. *EdSource*. https://edsource.org/2020/one-more-challenge-for-teachers-in-distance-learning-all-new-science-curriculum/645101

Other Publications

1. **Henrique, B.**, Roberto, C., & Wilkerson, M. H. (2022). Who creates our computational worlds? A review of Critically Conscious Computing: Methods for secondary education. *International Journal of Child-Computer Interaction, 35*, 100546. https://doi.org/10.1016/j.ijcci.2022.100546

2. **Henrique, B.**, Altamirano, D., & Krikorian, M. (2021). *The effect of labor differences in charter and traditional public schools on teacher attitudes and beliefs.* Graduate Library Research Awards. School of Education, Urban Education, Loyola Marymount University. https://digitalcommons.lmu.edu/glra/awards/2021/4

Students Mentored

*Undergraduate Mentee at UC Berkeley

2025–Pres.	**Kyle Fischer***
2025–Pres.	**Fernanda Guadalupe Cano Low***
2025–Pres.	**Frida Arriaga***
2024–Pres.	**Kayla Almero*** → M.A. Student at UCLA Teacher Education Program
2023–Pres.	**Erika Bruciaga*** → M.A. Psychology Student at SJSU
2023–Pres.	**Ella Nikfar*** → Psy.D. Student (Fall 2026)

Teaching Experience

Graduate Student Instructor — Fall 2021 – Present
University of California, Berkeley — *Berkeley, CA*
- **Education 144: Practicum in Education** (Fall 2023 – Present)
- **Education 140: The Art of Making Meaning** (Spring 2022 – Fall 2022, Summer 2024)
- **Computer Science Pre-Service Teacher Program** (Summer 2022, Summer 2023)
- **Computer Science 10: Beauty and Joy of Computing** (Fall 2021)

Middle School Science Teacher — June 2019 – June 2021
West Contra Costa Unified School District — *Pinole, CA*
- Implemented an NGSS-aligned 7th and 8th-grade science curriculum incorporating Universal Design for Learning and culturally responsive pedagogy.
- Utilized constructivist approaches to engage students through meaningful science projects, active experimentation, and computational modeling.

Undergraduate Student Instructor — Fall 2018 – Spring 2019
Computer Science 10: Beauty and Joy of Computing — *Berkeley, CA*
- Co-developed and implemented a weekly discussion-based curriculum.
- Collaborated with the Head TA to integrate equitable pedagogy training for undergraduate lab assistants.

Reviewer and Professional Service

2025–Present	Special Interest Group in Computer Science Education (SIGCSE)
2025–Present	International Society of the Learning Sciences (ISLS)
2025	ACM Conference on Human Factors in Computing Systems (CHI)
2025	Interaction Design and Children (IDC)
2022	*Journal of the Learning (JLS)*

Educational Outreach and Work Experience

Nonprofit Board Member - Treasurer — Summer 2020-Present
Love.Learn.Success — *Berkeley, CA*
- I serve as a voting board member of an after-school nonprofit that works toward learning experiences for under-served children in the East Bay Area of California.
- Advises board president on decisions relating to the long term growth of the organization in terms of employees, students and school sites.
- LoveLearnSuccess has now grown to over 9 after school sites across the Bay Area

Math Assessment Item Writer — January 2023 – Present
Achievement Network — *Boston, MA*
- Developed and refined over 250 mathematics assessment items for grades 5–8, ensuring rigorous alignment with Common Core State Standards.
- Collaborated with an editorial review team to evaluate and revise items for mathematical accuracy, cognitive complexity, and strict adherence to equity and inclusion principles.

Computer Science Education Intern — December 2021- December 2022
SAP: University Alliance Team — *Palo Alto, CA*
- I conducted analysis of artificial intelligence curricula and converted them to an American school context.
- I assisted with the development of new educational materials for use with Snap! (a block-based programming language) in collaboration with Jens Mönig.
- I maintained and moderated an active online computer science learning community for Snap.Berkeley.edu

GRE Math Content Expert and Item Writer — December 2020- November 2021
Magoosh — *Berkeley, CA*
- I improved student learning outcomes by developing GRE test preparation questions.
- I crafted text explanations for questions and filmed video explanations and lessons. Using user-created data, I adapted explanations and videos to meet student's needs.

Technical Skills

Programming Languages: Python, Snap!, Stata