Brendan Henrique

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EDUCATION

University of California, Berkeley   Berkeley, CA
Ph.D. Learning Sciences and Human Development   *August 2021-Present*

Loyola Marymount University   Los Angeles, CA
Masters of Arts in Urban Education   *June 2019 – May 2021*

University of California, Berkeley   Berkeley, CA
Bachelors of Arts in Cognitive Science, Minor in Education, High Honors   *August 2015 – May 2019*

RESEARCH EXPERIENCE

Research Fellow   January 2023 – Present
Transformative Learning Technologies Lab   *UC Berkeley and Columbia University*

- From Access to Sustainability: Investigating Ways to Foster Sustainable Use of Computational Modeling in K-12 Science Classrooms is an NSF-funded research project that seeks to support and examine the development of computational modeling as a sustained practice in middle school science classrooms.
- Led a team to develop a new biology unit where middle school students are tasked with developing computer code to model photosynthesis.

Graduate Student Researcher   August 2021 – Present
Computational Representations in Education Lab   *UC Berkeley*

- Current project is about the learning experiences of pre-service teachers enrolled in a Critically Conscious Computer Science course.
- Developed and implemented a novel computer science teacher education curriculum. Used qualitative methods to analyze data from the course such as thematic analysis and inductive coding.

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

- Studied how middle school students used virtual reality to develop 360-degree stories. Using a human-computer interaction framework, I analyzed student videos to find out what challenges arose with emerging technology within small groups.
- I developed and implemented a digital literacy curriculum using the social network Space2Cre8. Utilizing qualitative research methods, I analyzed the creative process of middle school students when they interact online through video chats and shared video artifacts.

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

- Directed 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 how to best support students' learning needs.

TEACHING EXPERIENCE

Graduate Student Instructor   Fall 2021- Present
UC Berkeley   *Berkeley, CA*
  ∗ CS10: Beauty and Joy of Computing   Fall 2018, Spring 2019, Fall 2021
  ∗ ED140: The Art of Making Meaning   Spring 2022, Fall 2022, Summer 2024
  ∗ ED144: Practicum in Education   Fall 2023, Spring 2024, Summer 2024, Fall 2024, Spring 2025
  ∗ Computer Science Pre-Service Teacher Program   Summer 2022, Summer 2023

Middle School Science Teacher   June 2019 – June 2021
West Contra Costa Unified School District   *Pinole, CA*
  ∗ Implemented a NGSS-aligned curriculum for 7th grade science that incorporated the universal design of learning and culturally responsive pedagogy.

* Drawing on constructivist approaches, I have engaged students' interests to learn concepts through meaningful science projects, active experimentation, videos, and building scientific models.

Undergraduate Student Instructor   Fall 2018- Spring 2019
Computer Science 10   *UC Berkeley*
  * Co-developed and implemented weekly discussion based curriculum for the *Beauty and Joy of Computing*.
  * Collaborated with the Head-TA to include equitable pedagogy training for lab assistants.
  * Received Outstanding Graduate Student Award for my dedication to students in CS10.

AWARDS

SIGCSE Graduate Student Competition Winner: First place winner of the ACM SIGCSE research competition
Pinto-Fialon Fellowship: Awarded to doctoral students who have Portuguese ancestry.
Loyola Marymount Library Graduate Research Award: Awarded for Masters thesis for quality of research and use of library resources.
WCCUSD 100 Teachers Award: Awarded by administrators, families and colleagues to the top 100 educators in the district out of 1700 teachers.
Outstanding Graduate Student Instructor Award: Awarded to the top 10 percent of graduate student instructors.
Top Researcher in Mixed Methods: Awarded to the best researcher in the Design for Equity Lab who specializes in mixed methods.

PUBLICATIONS

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.

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 Learning Sciences, Buffalo, NY, United States. https://doi.org/10.22318/icls2024.115107

Henrique, B., Roberto, C., Wilkerson, MH. (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

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

CONFERENCE PRESENTATIONS

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.

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**

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

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

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

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

Educational Outreach and Work Experience

Interim 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

Computer Science Education Intern
December 2021- December 2022

SAP   *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).
* I maintained and moderated an active online computer science learning community for Snap.Berkeley.edu

GRE Content Expert
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.

Lecturer
Fall 2015-Spring 2018

Berkeley Splash   *Berkeley, CA*
* Designed engaging and relevant lectures for visiting high schools students from the Bay Area.
* Lecture titles included: *The Real Mysteries of Time Travel* and *A Neurological Case Study in Pediatric Epilepsy.*

Technical Skills

Programming Languages: Python, Snap!, Stata