

# KATHRYN LAMAR-BRUNO

✉ ktlamarmath@berkeley.edu ☎ (626)-372-1816

📍 2963 Marengo Avenue, Altadena CA 91001

## EDUCATION

---

<b>University of California, Berkeley</b> <i>Masters of Science Degree in Electrical Engineering Computer Science</i>	<i>August 2022 - May 2023</i>
<b>University of California, Berkeley</b> <i>Bachelor of Arts Degree in Applied Mathematics and Computer Science <u>with Honors</u></i>	<i>August 2017 - May 2022</i>
<b>Pasadena City College</b> <i>Associates of Arts in Engineering and Technology <u>with Honors</u></i>	<i>August 2015 - June 2017</i>
<b>Pasadena City College</b> <i>Associates of Arts in Natural Sciences <u>with Honors</u></i>	<i>August 2015 - June 2017</i>

## INTERESTS & SKILLS

---

<b>Languages:</b>	Python, Java, C, C++, Matlab, LaTeX, LabVIEW, SQL, & RISC-V.
<b>Experience:</b>	RTHawk Research Platform Application Design (HeartVista), MR Pulse Sequence Design (Spinbench).
<b>Interests:</b>	Biomedical Imaging, Biophotonics, Biomedical Signals, Physiological Modeling, Signal Processing Theory, & Stochastic Processes.

## RESEARCH EXPERIENCE

---

<b>UC Berkeley Magnetic Resonance Imaging Research</b> <i>Member of Professor Michael Lustig's Research Lab</i> <i>Associated with Berkeley Artificial Intelligence Research (BAIR)</i>	<i>April 2021 - present</i>
<b>National Science Foundation Research Experience for Undergraduates</b> <i>Summer Undergraduate Program in Engineering at Berkeley Research Fellow</i>	<i>May 2021 - August 2021</i>
<b>Undergraduate Lab at UC Berkeley</b> <i>Physics &amp; Astronomy Lab Manager</i>	<i>June 2020 - May 2021</i>
<b>UC Berkeley Undergraduate Research Apprentice Program</b> <i>Research Apprentice in Professor Waqas Khalid's Lab</i>	<i>January 2020 - May 2020</i>
<b>Undergraduate Lab at UC Berkeley</b> <i>Biophysics Research Lead</i>	<i>August 2019 - May 2020</i>
<b>UC Berkeley Directed Reading Program</b> <i>Selected Undergraduate Participant</i>	<i>January 2018 - May 2018</i>
<b>UCLA Medical Center Care Extender Internship</b> <i>Care Intern</i>	<i>January 2016 - June 2016</i>

## SELECTED PRESENTATIONS

---

*Cardiac and Respiratory-Resolved Image Reconstruction with the Beat Pilot Tone.*

International Society for Magnetic Resonance in Medicine 2022 Joint Meeting.

📍 London, England, United Kingdom.

*Retrospective Motion Correction for Magnetic Resonance Imaging using the Beat Pilot Tone.*

UC Berkeley Engineering Research Symposium 2021.

📍 Berkeley, California, United States.

*Retrospective Motion Correction for Magnetic Resonance Imaging using the Beat Pilot Tone.*

Summer Undergraduate Program in Engineering Research at Berkeley 2021 Poster Session.

📍 Berkeley, California, United States.

*The Discrete Laplacian.*

UC Berkeley Directed Reading Program 2018 Project Presentations.

📍 Berkeley, California, United States.

*The Mechanical Integrator.*

Honors Transfer Council of California 2017 Honors Conference.

📍 Irvine, California, United States.

## PUBLISHED WORK

---

Kathryn Lamar-Bruno, Suma Anand, Michael Lustig. *Cardiac and Respiratory-Resolved Image Reconstruction using the Beat Pilot Tone.* ISMRM-ESMRMB 2022 Abstract, May 2022.

Lamar, Katie E. *Mechanical Integrator.* HTCC Building Bridges Journal, 5 March 2017.

## HONORS THESIS

---

Lamar-Bruno, K. *Retrospective Motion Correction in Magnetic Resonance Imaging using the Beat-Pilot Tone.*

UC Berkeley Mathematics Honors Program 2022.

## WORK EXPERIENCE

---

**UC Berkeley Graduate Student Instructor**

*BioEng C165: Medical Imaging Signals & Systems*

*August 2022 - December 2022*

**UC Berkeley Undergraduate Student Instructor**

*Math 53: Multivariable Calculus*

*January 2022 - May 2022*

**UC Berkeley EECS Academic Student Employee**

*EECS 16A: Designing Information Devices and Systems 1 Lab Tutor*

*August 2021 - December 2021*

**UC Berkeley Residential Life Academic Program**

*Mathematics Tutor*

*August 2018 - December 2021*

**UC Berkeley Student Learning Center**

*Summer Bridge Apprentice Mathematics Tutor And Grader*

*May 2018 - August 2018*

**Pasadena City College Math Success Center**

*Mathematics Tutor*

*April 2016 - September 2016*

## EXTRACURRICULAR

---

<b>MUSA 74: Transition to Upper Division Mathematics</b> <i>Course Designer and Instructor</i>	<i>Fall 2019, Spring 2020, Spring 2021</i>
<b>UC Berkeley Mathematics Undergraduate Student Association</b> <i>Outreach Officer</i>	<i>September 2019- May 2021</i>
<b>Mathematics Undergraduate Student Association</b> <i>Diversity Officer</i>	<i>August 2018 - December 2018</i>

## AWARDS

---

<b>International Society for Magnetic Resonance in Medicine Joint Meeting</b> <i>Selected Abstract &amp; Presenter</i>	<i>May 2022</i>
<b>UC Berkeley Mathematics Honors Program</b> <i>Honors Program Member</i>	<i>August 2021 - May 2022</i>
<b>UC Berkeley Engineering Research Symposium</b> <i>Selected Presenter</i>	<i>October 2021</i>
<b>NSF Summer Undergraduate Program in Engineering Research at Berkeley</b> <i>Research Fellow</i>	<i>May 2021 - August 2021</i>
<b>Pasadena City College Mathematics Honors Scholarship</b> <i>Scholarship Recipient</i>	<i>August 2017</i>
<b>Honors Transfer Council of California Research Conference</b> <i>Selected Abstract &amp; Presenter</i>	<i>April 2017</i>