

# LETICIA MATTOS DA SILVA

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## EDUCATION

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| <b>Massachusetts Institute of Technology</b><br>Ph.D in Computer Science<br>Advised by Justin Solomon at the Geometric Data Processing Group | September 2021 – <i>present</i> |
| <b>University of California, Los Angeles</b><br>B.S. in Mathematics <i>cum laude</i>   | September 2018 – March 2021     |

## RESEARCH EXPERIENCE

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| <b>Research Scientist Intern</b> at Adobe Inc.<br>• Investigated methods for generating 3D scenes from single images<br>• Implemented new experimental pipeline in PyTorch                                       | May 2022 – August 2022<br>Mentored by Matheus Gadelha       |
| <b>Research Intern</b> at the Fields Institute for Research in Mathematical Sciences<br>• Investigated mean curvature flow in the space of sign distance functions<br>• Implemented existing baselines in MATLAB | July 2021 – August 2021<br>Supervised by Alec Jacobson      |
| <b>Research Intern</b> at the Fields Institute for Research in Mathematical Sciences<br>• Implemented non-convex optimization problem using MOSEK<br>• Designed experimental pipeline for realtime fracture      | July 2020 – August 2020<br>Supervised by Alec Jacobson      |
| <b>Undergraduate Researcher</b> at UCLA Henry Samueli School of Engineering<br>• Developed robotic system based on millimeter wave antenna data<br>• Implemented data processing algorithm in Python             | September 2019 – March 2020<br>Advised by Dr. Dennis Briggs |
| <b>Student Researcher</b> at Williams College<br>• Investigated distribution of eigenvalues of matrices under symmetry constraints<br>• Implemented experimental testing in Mathematica                          | June 2019 – August 2019<br>Advised by Dr. Steven Miller     |

## PUBLICATIONS

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| <b>Breaking Good: Fracture Modes for Realtime Destruction</b><br>Silvia Sellán, Jack Luong, <b>Leticia Mattos Da Silva</b> , Aravind Ramakrishnan, Yuchuan Yang, Alec Jacobson<br>ACM Transactions on Graphics (to be presented at SIGGRAPH Asia) [arXiv] | 2022 |
| <b>The Space of Sign Distance Fields</b><br>Aditya Chetan, Jennifer Guo, <b>Leticia Mattos Da Silva</b> , Jacob Ridgway, Silvia Sellán, Alec Jacobson<br>[Technical Report]   | 2021 |

## HONORS AND AWARDS

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| <b>Schwarzman College of Computing Fellowship funded by Google</b><br>In recognition of outstanding academic record, exceptional background, and promising future. | Fall 2022 – Summer 2023 |
| <b>Google Lime Scholarship Semi-Finalist</b><br>Semi-Finalist to Google's Scholarship dedicated to students with disabilities in Computer Science                  | 2022                    |
| <b>MIT Distinguished Graduate Fellowship in EECS</b><br>Fellowship awarded to the strongest candidates admitted to the EECS PhD program                            | Fall 2021 – Summer 2022 |
| <b>Will Rogers Memorial Scholarship</b><br>University wide merit based award to students with a disability   | Winter 2021             |
| <b>Physical Sciences, Mathematics and Engineering Scholarship</b><br>College wide merit based scholarship for students pursuing majors in STEM                     | Spring 2017             |

## CONFERENCES AND PRESENTATIONS

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|---|---------------|
| <b>Why Don't We Just Do Good?</b><br><i>Best Talk Award.</i> Lightning Talk at MIT GW6 Research Summit                            | October 2022  |
| <b>Log of Heat Equation</b><br>Lightning Talk at MIT GW6 Research Summit  | November 2021 |
| <b>Fracture Harmonics</b><br>Report Talk at UCLA Women in Math Research Night   | May 2021      |
| <b>When bands play in Random Matrix Theory</b><br>Report Talk presented with Charles Devlin VI at Young Mathematicians Conference | August 2019   |

## TEACHING EXPERIENCE

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|---|-------------------------|
| <b>Instructor</b> at UCLA Henry Samueli School of Engineering<br>ENG 20: First-Year Engineering Transition Bridge         | Summer 2020             |
| <b>Teaching Assistant</b> at UCLA Henry Samueli School of Engineering<br>ENG 87: Introduction to Engineering Disciplines  | Fall 2019               |
| <b>Instructor</b> at UCLA Henry Samueli School of Engineering<br>ENG 20: First-Year Engineering Transition Bridge         | Summer 2019             |
| <b>Teaching Assistant</b> at De Anza College<br>MATH 114: Intermediate Algebra   MATH 217: Integrated Statistics   Others | Fall 2016 – Spring 2018 |

## COMMUNITY INVOLVEMENT

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| <b>EECS Graduate Student Association</b><br>Planning department Visit Days and New Graduate Student Orientation                 | January 2022 — <i>present</i> |
| <b>Disability Justice Council Representative</b><br>Serving as MIT's Graduate Student Council Disability Justice Representative | October 2021 — <i>present</i> |
| <b>Society of Latino Engineers and Scientists (SOLES)</b><br>Planning outreach events as part of the Ciencias Committee         | September 2019 – March 2020   |
| <b>Math Performance Success (MPS) Program</b><br>Assisting in the training of new tutors to attend underrepresented students    | September 2017 – Spring 2018  |

## SKILLS

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### Languages:

English (Fluent), Portuguese (Native), Spanish (Basic)

### Programming:

MATLAB, Python, C++, Mathematica

### Document Creation:

L<sup>A</sup>T<sub>E</sub>X, Microsoft Office Suite