

Education

- 2020–2024.5 Brown University, Providence, RI. B.Sc. in Mathematical Physics and Computer Science
- 2014–2020 The Overlake School, Redmond, WA

Publications

- 2023 **L. Z. Brito**, S. Carr, J. A. Jacoby, J. B. Marston. *Hamiltonian Reconstruction: the Correlation Matrix and Incomplete Operator Bases*, [arXiv:2311.09302].
- 2022 D. Candoli, I. K. Nikolov, **L. Z. Brito**, S. Carr, S. Sanna, V. F. Mitrović, *PULSEE: A software for the quantum simulation of an extensive set of magnetic resonance observables*". [doi:j.cpc.2022.105898].

Employment

- 2023 *Instructional Lab Assistant, Brown Department of Physics*
Specialized in quantum optics. Designed and implemented tabletop demonstration of Bell's inequality, single photon interferometry. Wrote Python photon acquisition software for laboratory usage.
- 2022–2023 *Teaching Assistant, APMA1930W - Probabilities in Quantum Mechanics*
Wrote and lectured supplementary curriculum on quantum information theory and related topics. Substitute lectured.
- 2017–2018 *Assistant instructor, Play-Well Teknologies*

Skills

- Programming Python (Scipy, Numpy, Matplotlib/Seaborn, SKLearn, Pandas), Julia, Java, Javascript (React, Vue), Languages HTML, CSS, SQL, L^AT_EX, bash scripting (Slurm, Git).
- Languages English, Portuguese, Spanish (conversational).

Awards and Recognition

- 2023–2024 Goldwater Scholar in Physics and Astronomy.

Relevant Coursework

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| Physics | <ul style="list-style-type: none">• Advanced Electromagnetic Theory• Quantum Mechanics I*, II*• Advanced Quantum Mechanics*• Advanced Statistical Mechanics* | <ul style="list-style-type: none">• Computational Physics*• Quantum Theory of Fields I*, II*• Quantum Many-Body Theory*• Gauge Theory* |
| Computer Science | <ul style="list-style-type: none">• Accelerated Intro to Computer Science• Data Science• Intro to Software Engineering | <ul style="list-style-type: none">• Interdisciplinary Scientific Visualization*• IS in Scientific Visualization |
| Mathematics | <ul style="list-style-type: none">• Linear algebra• Partial Differential Equations• Abstract Algebra | <ul style="list-style-type: none">• Complex Analysis• Differential Geometry* |

(* = graduate level)

Outreach

- 2021–pres. Undergraduate Physics Journal Club, Co-Head.