

# Reece Boston, Ph.D. Physics

numerical astrophysics researcher

seeking complex coding challenges



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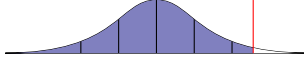
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• C++ (>10yr)



• R (>10yr)



• python (3yr)



• Misc.: SQL, git, GNU/Linux, bash, fortran, Java, HTML, Objective-C, x86 assembler.

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## Work Experience

**R&D Data Scientist** at [Community](#), Sept 2021 - Present

- analyze big data for product insights using causal inference and market archotyping
- work on team with data engineering to transform databases for data lakehouse [dbt]
- present key findings to stakeholders in product and finance

Technology: python [pandas, numpy, sklearn, spaCy]; github; Snowflake SQL; Docker; AWS.

**Research Assistant** at University of North Carolina, Fall 2016 - Spring 2022

- conducted scientific research leading to original publications
- created original research code in C++ within Linux environment using GNU tools
- designed, built, tested and documented project during all development stages
- integrated with legacy and modern fortran code (e.g. GYRE, WDEC, MESA, and ZAMS)

Technology: C++ [gcc, STL, MPI multithreading, make]; bash scripting; github; fortran.

**Teaching Professor** at University of North Carolina, Summer 2019, 2020

- communicated complex topics to non-experts in life sciences, with glowing evaluations
- recorded many of [the online lectures](#) for COVID-19 response (Lec 7-10,14,26-27)

## Research Codes

[GRPulse](#): High-precision asteroseismology code for Newtonian and relativistic stellar models.

[Thrain](#): Astrophysics code to create simple white dwarf stars.

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## Research Publications

- Boston, S. Reece, *Newtonian and Relativistic White Dwarf Asteroseismology*, [Ph.D. dissertation](#), UNC, (2022).
  - Boston, S. Reece, C. R. Evans and J. C. Clemens, “The limits of Newtonian white dwarf asteroseismology.” *Astrophysical Journal*, (2022) [Awaiting Submission].
  - de Souza, Rafael, [S. Reece Boston](#), Alain Coc, and Christian Iliadis, “Thermonuclear fusion rates for tritium+deuterium using Bayesian methods.” [Physical Review C](#), (2018).
  - Boston, S. Reece, “Time travel in transformation optics.” [Physical Review D](#), (2015).
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**Ph.D., Physics** University of North Carolina, 2022

**M.S., Physics** University of Georgia, 2015

**B.S., Mathematics and Physics** Georgia College, 2010

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