

Reece Boston, Ph.D. Physics

numerical astrophysics researcher

seeking complex coding challenges



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• C++ (>10yr)



• R (>10yr)



• python (3yr)



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

Work Experience

Scientific Software Engineer at ORNL, Mar 2023 - present

- design, build, test, and document code base for neutron scattering data reduction

Quant Researcher at Anchorage Digital, Oct 2022 - Mar 2023

- analyze market cryptocurrency market liquidity

Technology: python; Google Cloud; BigQuery.

R&D Data Scientist at [Community](#), Sept 2021 - June 2022

- analyze big data for product insights using causal inference and market archotyping

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.

Research Codes

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

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

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, “Relativistic Corrections in White Dwarf Asteroseismology.” *Astrophysical Journal*, [accepted May 9, 2023].
 - 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
