Reece Boston, Ph.D.

astrophysicist 🪐

data scientist 🖩

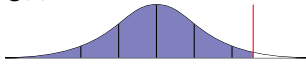tel: [770.355.0261](tel:770.355.0261)
email: reece@thebostons.us
github: [rboston628](https://github.com/rboston628)
linkedin: [reece-boston](https://linkedin.com/in/reece-boston)

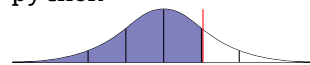- C++
- R
- python

- Misc.: SQL, Java, Objective-C, bash, fortran 77, HTML, GNU/Unix, x86 assembler.

Work Experience

R&D Data Scientist at Community, Sept 2021 - Present

Projects: causal inference for engagement; SMS topic tagging; market archetyping.

Responsibilities: analyze big data for product insights; work on team with data engineering to transform data for lakehouse; manage platform NLP services for SMS analysis.

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

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

Topic: white dwarf asteroseismology in classical and general relativistic settings.

Responsibilities: created original research code in C++ within Unix environment using GNU tools; designed class hierarchy and architecture for program.

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

Physics Instructor at University of North Carolina, Summer 2019, 2020

Course: Physics for Life Sciences [phys 115]

Responsibilities: provided physics instruction to non-experts in life sciences; 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.

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).

Ph.D., Physics University of North Carolina, 2022

M.S., Physics University of Georgia, 2015

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