

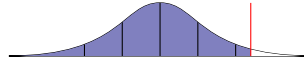


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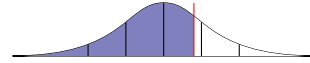
• C++ (>10yr)



• python (>4yr)



• R (>10yr)



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## Work Experience

Scientific Software Engineer at ORNL

Mar 2023 - present

Quant Researcher at [Anchorage Digital](#)

Oct 2022 - Mar 2023

R&D Data Scientist at [Community](#)

Sep 2021 - Jun 2022

Research Assistant at University of North Carolina

Aug 2016 - May 2022

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## Projects

**Thrain:** High-precision asteroseismology code for simple white dwarf stars. I was the sole dev and designer for this project, which came out of my dissertation research. The software enabled validating a long-standing hypothesis about white dwarf star formation from ensemble fitting.

**tech** low-level language features of C++, written in a text editor, compiled in gcc

**SNAPRed:** Neutron scattering data reduction code for highly-reconfigurable instruments. I was a lead dev on this project, and helped in the design and planning. To highlight a few contributions, I wrote the non-SQL database manager for handling filesystem data, and streamlined code production by building dev tools within the program.

**tech** python [pydantic, pytest, PyQt5]

**Mantid:** Neutron scattering data analysis software from the mantid project. I am a contributor to the project and a gatekeeper for code changes. My largest contribution was refactoring the legacy file management system through a methodical process known as the strangler.

**tech** C++17/20 [cmake, cxxtest, hdf5/H5Cpp, STL]

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## Research Publications

- Alejandro H. Córscico, [S. Reece Boston](#) et al, “General relativistic pulsations of ultra-massive ZZ Ceti stars,” [MNRAS](#), (2023).
  - Boston, S. Reece, C. R. Evans and J. C. Clemens, “Relativistic Corrections in White Dwarf Asteroseismology.” [Astrophysical Journal](#), (2023)
  - Boston, S. Reece, *Newtonian and Relativistic White Dwarf Asteroseismology*, [Ph.D. dissertation](#), UNC, (2022).
  - 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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