Ezra Brooker

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EDUCATION

FLORIDA STATE UNIVERSITY

Ms/PhD in Computational Science
Expected May 2019/ May 2022 | Florida, FL
Cum. GPA: N/A

BS in Physics and Astrophysics
May 2015 | Tallahassee, FL
Conc. in Computational Astrophysics
College of Science and Art
Cum. GPA: 3.27 / 4.0
Major GPA: 3.20 / 4.0

LINKS

Website:// **ebrooker**
Github:// **ebrooker**
LinkedIn:// **Ezra Brooker**

COURSEWORK

GRADUATE

Scientific Programming
Applied Computational Science I w/ Lab
Elementary Oceanography (Teaching Asst)
Applied Comp. Sci. II w/ Lab (Spring)
Validation and Verification (Spring)

UNDERGRADUATE

Nuclear Astrophysics
Physics of Stars
Special and General Relativity
Hydrodynamics in Astrophysics
Computational Astrophysics
Electricity and Magnetism I/II

SKILLS

PROGRAMMING

Languages:
Python • C • C++ • FORTRAN 90/95
Learning: Bash • LaTeX
Platforms:
Windows XP, 7, 10 • Linux centOS, Redhat, Mint, OpenSUSE

EXPERIENCE

FSU: EARTH, OCEAN AND ATMOSPHERIC SCIENCE DEPARTMENT | Graduate Teaching Assistant

Aug 2017 – Dec 2017 | Tallahassee, FL

- Online Elementary Oceanography course.

FSU: PHYSICS DEPARTMENT | Post-Baccalaureate Research Assistant

May 2015 – July 2015 | Tallahassee, FL

- Worked under Dr. David Collins on large stellar formation datasets from Enzo simulations. Primarily wrote in Python: YT, AstroDendro, astropy, numpy, and pyFits. Developed Python routines to calculate polarization angles of interstellar dust scattered light, isolate proto-stellar cores in data, and determine orientation of local magnetic fields relative to the mean interstellar cloud magnetic field.
- Routines implemented to function as analysis tools analogous to observational astronomy data collection and analysis methods.
- All code was reviewed by research supervisor.

FSU: PHYSICS DEPARTMENT | Undergraduate Learning Assistant

Aug 2014 – May 2015 | Tallahassee, FL

- General Physics B w/ Lab: Electricity, Magnetism, Circuits, Optics
- Worked under Dr. Paul Cottle and two Graduate Teaching Assistants.
- Socratic style class, actively participated in classwork and lab sessions two days a week.

RESEARCH

FLORIDA STATE UNIVERSITY ASTRO GROUP | (Post)-Undergraduate Researcher

Sept 2013 - July 2015 | Tallahassee, FL
Worked with David Collins. Honors Thesis completed and submitted to Florida State University Libraries Digital Repository.

FLORIDA STATE UNIVERSITY SCIENTIFIC COMPUTING DEPARTMENT | Undergraduate Researcher

Sept 2012 – May 2013 | Tallahassee, FL
Worked with Tomasz Plewa. Gained experience in research methodology, programming in FORTRAN 90/95, using the astrophysics software Mesa. Gained useful insight and experience necessary to conduct research for an Honors Thesis project later on in undergraduate program with the Department of Physics, Astro Group.

AWARDS/WRITTEN WORKS/POSTERS

2015	3rd Place	The Lanutti Award for Undergraduate Research, FSU Dept of Physi
2015	Honors Thesis	Magnetic Field Angles in Collapsing Molecular Clouds