# **Jason Bane**

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## Experience

• University of Tennessee, Department of Physics and Astronomy Graduate Research Assistant Knoxville, TN,

May 2014 – Present

- Designed and constructed front end electronics for a detector system.
- Maintained and refurbished detector components of a spectrometer.
- Worked in DOE-regulated environment within range of high magnetic field and extreme pressure areas.
- Calibrated detectors and used analysis tools in Java to control the quality of data during an experiment.
- Performed analysis on a large data sets using Python, C++, ROOT, and fortran.
- University of Tennessee, Department of Physics and Astronomy Graduate Teaching Assistant

Knoxville, TN,

*August* 2012 – *May* 2015

- Designed and implemented observational and planetarium based astronomy labs.
- Instructed students in laboratory exercises to help conceptualize physics topics.
- Tutored students for homework assistance and test prep.
- Clay County Tennessee Education Department

Celina, TN

Secondary Educator & Football Coach

*August* 2010 – *May* 2012

- Created lesson plans that included interactive, creative thinking, and discussion driven curriculum for a diverse body of math and physics students.
- Used discussion-based problem-solving lessons to help remedial math students to improve their algebra, geometry and trigonometry skills for post-secondary education.
- Provided an equitable and inclusive atmosphere for diverse students.

#### Education

• University of Tennessee

Ph.D. in Nuclear Physics

*Thesis: The EMC Effect in A=3 Nuclei* 

• University of Tennessee

Secondary Education Certification in Math and Science

• University of Tennessee

Bachelor of Science, Physics & Minor in Education

Knoxville, TN

August 2012 – Planned December 2019

Advisor: Nadia Fomin

Knoxville, TN

*August 2009 – May 2010* 

Knoxville, TN

August 2004 – May 2009

### Core Technical Skills

**Hardware:** Detector maintenance and wiring, front end electronics design and implementation, logical trigger design and testing

Languages: C, C++, LATEX, Python, shell script, SQL

Monte Carlo Simulation Packages

Example scripts located at https://github.com/jbane11/examples

**Software:** Microsoft Office, Libre Office, Texstudio, vim, atom **Operating Systems:** Linux(Red Hat), Windows, MacOS

## Honors

- Jefferson Science Associates graduate fellowship award (2018)
- Chancellor's honors for extraordinary professional promise (2016)
- DOE Office of Science Graduate Student Research program award (2015)
- Dean's List 2009 Academic Year (2010)

## Interests

Football, coaching, programming, boating, traveling,