## Jason Bane

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## Education

• University of Tennessee

Knoxville, TN

Ph.D. in Nuclear Physics

August 2012 – Planned December 2019

Thesis: The EMC Effect in A=3 Nuclei

Advisor: Nadia Fomin

Knoxville, TN

Secondary Education Certification in Math and Science

August 2009 – May 2010

• University of Tennessee

• University of Tennessee

Knoxville, TN

Bachelor of Science, Physics & Minor in Education

August 2004 – May 2009

## Experience

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

Knoxville, TN, May 2014 – Present

- Designed and constructed front end electronics for an electron spectrometer.
- Used Oscilloscopes to test signals, debug logic modules, and map out inconsistent signals.
- Maintained and refurbished individual detector components of a spectrometer including checking the quality of Photo Multiplier Tubes and plastic scintillators.
- Performed analysis on a large set of data involving multiple nuclear targets using Python, C++ , ROOT, and fortran.
- Worked with a diverse collaboration, leading projects and working as a team member
- University of Tennessee, Department of Physics and Astronomy

  Graduate Teaching Assistant

  August 2012 May 2015
  - Designed and implemented observational and planetarium based astronomy labs.
  - Instructed students in laboratory exercises to help conceptualize physics topics.
- Clay County Tennessee Education Department Secondary Educator & Football Coach

Celina, TN 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.

- Provided an equitable and inclusive atmosphere for diverse students.

## Core Technical Skills

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

**Languages:** C, C++, L<sup>A</sup>T<sub>E</sub>X, 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