Jason Bane

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Education

- **University of Tennessee** — **Knoxville, TN**
  Ph.D. in Nuclear Physics — *August 2012 – December 2019*
  Thesis: The EMC Effect in A=3 Nuclei — *Advisor: Nadia Fomin*
- **University of Tennessee** — **Knoxville, TN**
  Secondary Education Certification in Math and Science — *August 2009 – May 2010*
- **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** — **Knoxville, TN,**
  Graduate Research Assistant — *May 2014 – Present*

  - Performed analysis on a large set of data involving multiple nuclear targets using Python, C++ , ROOT, and FORTRAN.
  - Studied detector efficiencies, background events, and systematic uncertainties.
  - Used Monte Carlo simulations to study spectrometer acceptance probability.
  - Maintained a SQL database and constructed scripts to efficiently use the database
  - Constructed, maintained and refurbished components of an electron spectrometer .
  - Worked with a diverse collaboration, leading projects and working as a team member

- **University of Tennessee, Department of Physics and Astronomy** — **Knoxville, TN,**
  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** — **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.
  - 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++, 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