
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*
 - **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*
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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.
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Core Technical Skills

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

Languages: C, C++, L^AT_EX, Python, shell script, SQL
Monte Carlo Simulation Packages

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

Software: Microsoft Office, Libre Office, Textstudio, vim, atom

Operating Systems: Linux(Red Hat), Windows, MacOS
