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# 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*
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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.
    - Conveyed quantitative and qualitative analyses results to peers and collaborators
    - 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<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, Textstudio, vim, atom

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

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