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Jasmine Therese Brewer

Objective

Gain experience in basic research, computational methods, and design in the physical sciences.

Academics

University of Colorado at Boulder
Anticipated Graduation: May 2015
Major: Engineering Physics
Minors: Mathematics, Computer Science
Current GPA: 3.923

Awards

Presidential Scholar, University of Colorado at Boulder
Merit Scholar, College of Engineering and Applied Science
Engineering Honors Program (EHP) Member, Fall 2011 – Present
Dean's List Recognition (Fall 2011-Present), College of Engineering and Applied Science
AP Scholar with Distinction and National Merit Commendable Student (2010)

Skills

- Strong software-development experience, including particular fluency in MATLAB, C++, Java, and C#.
- Solid mathematical background, including experience with mathematical methods for theoretical physics and a background in proof-based mathematics.
- Electronics and PCB design experience

Professional Experience

Nuclear Theory and Computational Fluid Dynamics, 2013
I am implementing a set of fluid dynamical algorithms for the theoretical study of elliptic flow in cold atomic gases and plasmas.

Liquid Crystal Materials Research Center, 2012 – 2013
I was involved in the experimental study of interactions between particles in liquid crystal fields, and am a coauthor on a paper being submitted for publication on this topic. I also became involved in simulations of liquid crystal dynamics while in this group.

Optical Remote Sensing Laboratory, Summers 2012 – 2013
(NSF Research Experiences for Undergraduates program, 2012)
In 2013 I designed and implemented a set of quantitative image analysis algorithms for an airborne imaging system used to detect leaks at CO_2 sequestration sites. In 2012 I developed an electronic system for optical detection of the aurora borealis.

Colorado Space Grant Consortium, 2011 – 2012
I was a member of a small team that designed an electronic system to record atmospheric data during rocket flights.

Northwestern Energy, Summer 2011
I conducted a survey of the effectiveness of electrical corrosion protection on natural gas lines.

References

Available Upon Request