# **Jasmine Therese Brewer**

**Objective** Gain experience in theoretical research and computational methods in the high-energy

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