

# COLTON FRUHLING

---

501 Stadium Drive Room 40a, UNL, Lincoln Ne. 68505 | 402-472-3207  
| colton.fruhling@huskers.unl.ed

## SUMMARY

---

I am currently progressing through Atomic, Molecular, Optics and Plasma coursework at the University of Nebraska-Lincoln. Specific research interests include high intensity laser interactions with matter, laser wakefield acceleration, x-ray generation via Inverse Compton Scattering, and experiments on radiation damping at ultrahigh intensities.

## EDUCATION

---

2014 - Present      Ph.D Physics, *University of Nebraska-Lincoln*

2010 - 2014        BS Physics, *Colorado State University*

## AWARDS AND ACHIEVEMENTS

---

Fa 2015-Sp 2016    Graduate Assistance in Areas of National Need Fellowship

· Awarded by U.S. Department of Education

Sp 2014             Dean's List

· Awarded by CSU College of Natural Sciences

Sp 2014             Highest Honors, *Celebration of Undergraduate Research and Creativity*

· Awarded for oral presentation of thesis by Office of Vice-President for Research at Colorado State University

Fa 2013             Chapter Founding member of  $\Phi\Kappa\Theta$  – Colorado Chi Sigma Fraternity

## EXPERIENCE

---

2014 - Present     Research Assistant, *Diocles Extreme Light Laboratory*

· Assisted in the development of experimentally essential laser overlap process: the micron and femtosecond spatial and temporal overlap, respectively, of two laser beams in vacuum chamber.

· Use of general laser lab experimental techniques.

· Simulation of x-ray generation based on inverse-Compton scattering

2012 - 2014        Undergraduate Research Assistant, *Dr. Kristen Buchanan*

- Developed an apparatus for applying an out-of-plane field for the study of magnetic materials
- Spin wave properties visualization via computer program (Matlab)
- Assembly and coordination via Labview necessary equipment (signal generators, Gauss meter, etc.) for experiments

Summer 2013

Undergraduate Research Assistant, *Dr. Donald Umstadter*

- Investigated and recommended mitigation techniques for EMP disruption of electronics.