

Education

The University of Texas at Austin

Bachelor of Science, Physics candidate

Cumulative GPA: 4.0/4.0

Expected Graduation Date: December 2011

Relevant Coursework

Completed: Quantum Mechanics 1&2, Classical Electrodynamics, Classical Dynamics, Modern Physics Laboratory, Wave Motion and Optics, Complex Analysis, Vector Calculus, Differential Equations, Chemistry 1&2

Prospective 2010-2011: Quantum Mechanics: Perturbation Theory, Statistical Mechanics and Thermodynamics, Particles, Introduction to Relativity

Experience

The University of Texas at Austin

August 2010 - Present

Learning Assistant

- Instruct undergraduate students in the course Engineering Physics I
- Teach students to do basic physics modeling in Python and VPython

Fusion Research Center (UT)

June 2010 - Present

Research Assistant

- Searched for useful calibration spectra to compare with known plasma spectra for future flow velocity measurements in the UT Helimak
- Helped set up and calibrate spectroscopic equipment, such as a monochromator and photomultiplier

Biophysics Group (UT)

February - May 2010

Research Assistant

- Assisted in building and soldering electronic devices for use in photographing and measuring polarized camouflage in marine fish and squid
- Designed and programmed simple microcontroller circuits for use in more complex electronics

Modern Physics Laboratory (UT)

Fall Semester 2009

Student

- Learned to use Mathematica and Excel for numerical data calculation and analysis
- Analyzed video and photographic data using image processing software to obtain numerical data for experiments
- Wrote detailed and extensive lab reports in LaTeX over a variety of physics topics, learning to typeset graphs and mathematical formulae
- Designed, built, and implemented an experimental apparatus used to successfully measure nondipole optical scattering effects from nanoparticles suspended in fluid

Honors

Conrad and Marcel Schlumberger Scholarship

2008 - 2012

Unrestricted Endowed Presidential Scholarship (UT)

2010 - 2011

- Prestigious UT scholarship offered to undergraduates of all fields of study
- One of the two physics students nominated for the award, which 263 students throughout the university received

Technical Skills

- Experienced with Mathematica, Excel, LaTeX, and ImageJ; familiar with HTML, Java, Python and PickIT assembly language