Sean E. Connelly

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Objective

Recent physics graduate with strong programming experience seeking programming job with leading company in technical innovation.

Education

University of Illinois at Urbana-Champaign May 2016
Bachelor of Science, Engineering Physics GPA: 3.66/4.00

- Minors: Computer Science, Mathematics
- Dean's List: Fall 2012-Spring 2014
- James Scholar: Spring 2013-Spring 2016
- Relevant Coursework: Data Structures, Parallel Programming for Scientists/Engineers, Numerical Analysis

Skills

- OS: Linux, Windows
- Languages: Python, C++, C, Java(Eclipse), Wolfram Language, Bash, LaTex, XML, SQL

Experience

University of Illinois, Department of Physics Urbana-Champaign, IL
Data Visualization Research Assistant Summer 2014 - Spring 2016

- Collaborated on a 5 member research team to engineer astrophysical data visualizations utilizing low-level programming languages and super-computing applications
- Performed three-dimensional astrophysical visualizations using VisIt
- Used the Blue Waters Supercomputer in order to parallelize computational work
- Created scripts with Python for VisIt, and used Bash and C++ for parsing large (~4TB) data sets
- Used XML to create webpages on Engineering Servers in order to showcase our images, movies, and results
- Cited in several articles in *Nature*, where some of the visualizations are shown

Teaching Assistant Spring 2016
Physics Made Easy

- Helped education students explore the basic concepts of physics
- Set up the lab for the students
- Held office hours in order to respond to students' questions

Teaching Assistant Fall 2015
Electricity, Magnetism, and Modern Physics

- Facilitated the lab section of the class
- Graded lab reports and gave feedback to more than 60 students weekly
- Responded to students' questions during office hours
- Proctored exams and finals

Research Assistant, Professor Alfred Hubler Spring 2014

- Performed calculations exploring the topic of motion-induced transparency
- Examined current models of photon emission and looked for how an object may be rendered transparent
- Formatted results as a scientific paper using LaTex

Leadership And Activities

St. John's Catholic Newman Center Champaign, IL
Student Coordinator Fall 2015

- Organized and co-led a 20 person retreat team for a weekend retreat
- Co-led weekly meetings for eight weeks prior to the retreat
- In charge of maintaining a strict schedule during meetings and on the retreat
- Individually discussed how to best fulfill positions with team members
- Advertised the retreat through paper handouts, online forms, and social media
- Communicated logistics and discussed outcomes with 25 participants