Steven J. Koch

Contact Information

Research Data Scientist, University Libraries
Visiting Applications Scientist, CARC
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Objective

To obtain contract work that leverages my expertise in molecular biology and extensive experience writing clear exam and quiz questions that test and promote student learning.

Relevant skills and experience

Seven years experience teaching physics and biophysics classes at the undergraduate and graduate university levels with excellent student ratings. Designed and refined hundreds of multiple choice and free-response quiz and exam questions. Strong computer skills and ability to learn new systems and environments quickly. Excellent written communication skills demonstrated through peer-reviewed publication record and blogs.

Education

Cornell University, Ithaca, NY

Ph.D., Physics (Biophysics minor) **May 2003**

- Dissertation: Probing protein-DNA interactions by unzipping single DNA molecules with a laser trapping microscope
- Advisor: Professor Michelle D. Wang

M.S., Physics **2000**

University of Michigan, Ann Arbor, MI

B.S., Honors Physics **1996**

Recent Experience

University of New Mexico, Albuquerque, NM

Research Data Scientist (University Libraries) **June 2013 – Present**

Visiting Applications Scientist (CARC) **January 2014 – Present**

Team member of newly-formed Research Data Services group. Leading a pilot project within the University Libraries to help connect campus researchers with high performance computing (HPC). Collected data and co-authored assessment of University Libraries' physical collection.

University of New Mexico, Albuquerque, NM

Assistant Professor **August 2006 – May 2013**

One large grant (DTRA, $1.5M, co-PI with Atlas), state of the art optical tweezers and automated kinesin gliding motility assays. Four Ph.D. students graduated. Mentored 8 undergraduate researchers. Taught more than 700 students, mostly undergraduate courses, with excellent reviews. Open-science advocate.

Sandia National Labs, Albuquerque, NM

CINT Distinguished Postdoctoral Fellow, Appointee **2003 – 2006**

Implemented wide array of collaborative biophysics projects across Sandia and LANL / CINT. Major publications in MEMS (Applied Physics Letters) and Kinesin (Fungal Genetics and Biology)

Scientific Publications

Available on my Google Scholar page (Steven J. Koch http://goo.gl/kszZ3). Highly-cited publications in Biophysical Journal (2002, 90 citations), Physical Review Letters (2003, 47 citations), Advanced Materials (2008, 26 citations), Nano Letters (2008, 18 citations), Applied Physics Letters (2006, 17 citations), Fungal Genetics and Biology (2007, 7 citations).

Honors and Awards

Addgene Resource Sharing Award, CINT postdoctoral fellowship, US Dept. Ed. GAANN TA/RA fellow, Honorable Mention NSF Graduate Research Fellowship, U. Michigan: Sigma Pi Sigma, Phi Beta Kappa, James B. Angell Scholar, and Sharon Naughton-Briggs Memorial Scholarship.