

BENJAMIN D. GAMARI

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EDUCATION

University of Massachusetts, Amherst (currently enrolled)
Pursuing PhD, Physics

The George Washington University, Washington, DC
Bachelor of Science, Physics (minor in economics), May 2009

EXPERIENCE

Graduate Student University of Massachusetts Fall 2009—Present
Amherst, MA

Working in Professor Lori Goldner's biophysics research group. Here I developed hardware and software for taking high-resolution time-tagged photon data for fluorescence microscopy experiments. Worked extensively on data advanced analysis techniques for data from fluorescence correlation spectroscopy and fluorescence resonance energy transfer experiments. Designed data-acquisition hardware, software, and optical setup for a back-focal plane particle tracking system.

Biophysics Researcher The George Washington University Fall 2006—August 2009
Washington, DC

Worked in Professor Mark Reeves' biophysics research group. Here I have worked to develop a near-field tissue ablation and analysis instrument, gaining experience with tuning-fork AFM probe construction and optimization, infrared optics, instrument integration and infrared fiber etching.

HPC Developer The George Washington University Spring 2008—Fall 2008
Washington, DC

Worked with Dr. Andrei Alexandru of the Physics Department in collaboration with faculty from the department of computer science to implement a package for lattice quantum chromodynamics calculations on NVidia's CUDA framework. Gained experience with algorithm development and low-level software optimization on a highly parallel platform.

Programmer Dept. of Academic Technologies (GWU) Fall 2006—Spring 2007
Washington, DC

Responsible for independently developing an interactive IT knowledgebase web application on the Ruby on Rails framework. Worked with other developers on numerous other projects including the University's disk image management system and other internal applications.

Tutor Society of Physics Students Fall 2005—Present
Washington, DC

Working in both volunteer and paid positions, I have tutored both groups and individuals in fields as diverse as physics, mathematics, electrical engineering, and computer science.

Sailing School Instructor Kittery Point Yacht Club Summer, 2000—2008
New Castle, NH

Responsible for three classes daily of twenty students of ages 8 to 80. Gained valuable experience in instructional methods, group leadership, and dispute resolution.

AWARDS/HONORS

2013: University of Massachusetts Institute for Computational Biology, Biostatistics, and Bioinformatics' Open-Source Software Innovation Award, first place 2012: Dandamudi Rao Scholarship in Biological Physics, University of Massachusetts 2009: GWU Peverley Prize for Excellence in Undergraduate Research