Ryan M Harrison

2115 Cloville Avenue Baltimore, MD 21214 +1 443 257 5953

ryan.m.harrison@gmail.com

Wolfson College Linton Road, Oxford OX2 6UD +44 07523 229446

Education

University of Oxford, Wolfson College (Oxford, UK)

Expected 2014

DPhil Student, Biological Physics (NSF Fellow)

- Coarse-grained molecular simulation of DNA in C/C++, including various rare event methods. Analysis suite written in Python. Testing taskmaster / wrote integration test framework.
- Single-molecule studies of the RecQ DNA helicase. Signal processing and noise analysis in MATLAB. Extensive wetlab: bacterial culture, protein purification, site-specific labeling, etc.

Johns Hopkins University (Baltimore, MD)

December 2009

Bachelor of Science in Biomedical Engineering; Minor in Economics. GPA: 3.26/4.00

- Engineers without Borders, Treasurer. \$100k/year turnover. Guatemala potable water team.
- Student Activities Commission, Cultural Liaison. Ten person funding board, ~\$250k oversight.

Danish Institute for Study Abroad (Copenhagen, Denmark)

Fall 2009

International Business & Economics Program

Tech Natural Motion (Oxford, UK)

Summer 2013

• R&D for the Morpheme procedural animation and AI engine. Implementation in C/C++.

Ginkgo BioWorks (Boston, MA)

Jan – May 2010

- Developed Django and Rails apps for the rapid prototyping of engineered biological systems.
- Collaborated directly with end-users for the agile development of software specifications.

Ion Torrent Systems (Guilford, CT)

Summer 2009

- Conducted system optimization and benchmarking on a next generation sequencer.
- Wrote Python app to compare DNA sequencing quality between experimental conditions.

Computational Proteomics Research Asst (Baltimore, MD)

2003 - 2007

- Used C/C++ to implement a computational model of pH-sensitive regions within proteins.
- Mentored high school student with interest in protein structure prediction.

Policy

Maryland General Assembly (Annapolis, MD)

Spring 2009

- Prepared testimony, policy memos, and written/oral statements for a Baltimore City Delegate.
- Coordinated with stakeholders to amend legislation brought before the House Health and Government operations committee, insurance and minority health disparities subcommittees.

Activities

Facebook London Hackathon	27-28 Apr 2013
Saïd Business School Building a Business Course	2012/2013
CECAM Molecular Simulation Course	7-18 Jan 2013
Mid-Atlantic Biotech Conference (Volunteer)	27-28 Sept 2012
NIH Science Policy Group	Sept 2011 – June 2012
Mid-Atlantic Venture Association Capital Connection (Volunteer)	23-24 May 2012
Marine Biological Lab Optical Microscopy Course	11-21 Oct 2011

Honors

NIH Graduate Student Research Award (Travel Award)	2011
National Science Foundation Graduate Research Fellow (3 year / \$120k)	2010
Inductee, National Gallery for America's Young Inventors (\$5k)	2006
5th Place, Intel Science Talent Search (\$25k)	2005

Hobbies

Bow ties / sewing, allotment gardening, light design and technical theater.