

Eric S. Harper

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Education

University of Michigan, Ann Arbor, MI. Graduation: May, 2017

Doctor of Philosophy, Materials Science and Engineering

Graduate Certificate in *Computational Discovery and Engineering*

University of Michigan, Ann Arbor, MI. Graduation: May, 2014

Master of Science, Materials Science and Engineering. GPA: 3.774/4.00

Master's Thesis: *Self-assembly of complementary shape alloys*

University of Dayton, Dayton, OH. Graduation: May, 2011

Bachelor of Chemical Engineering, minor in Polymers, Suma Cum Laude. GPA: 3.955/4.00

Honors Undergraduate Thesis: *Bulk-Heterojunction Photovoltaic Cells*

Skills

Programming: Python, C++ (CUDA, MPI, OpenMP, Intel TBB), OpenGL, Bash

Simulation Techniques: Molecular Dynamics, Monte Carlo

Experience

2011 - **Graduate Student Research Assistant**, University of Michigan, Mat. Sci. & Eng.

- Research Focus: Self-Assembly via Molecular Dynamics and Monte Carlo Simulation
- Remote Unix/Linux system usage including nyx/flux at UM, Blacklight at Pittsburgh, and Stampede at UT-Austin
- Developed software tools for simulation and analysis
- Junior system administrator for group computational resources

2015 **Graduate Student Instructor**, University of Michigan, Mat. Sci. & Eng.

- MSE 365: Undergraduate Lab

2010 - 2011 **Teaching Associate**, University of Dayton, Chemical Engineering

- Chem. E. Computations; Separation Techniques; Process Dynamics and Control

2010 - 2011 **Consultant/System Administrator**, Composite Technical Services, Dayton, OH

- Conducted Life Cycle Assessments on composite and foam product lines
- Developed rigid foam formulations and conducted flame tests on foam samples

2008 - 2009 **Undergraduate Research Assistant**, Air Force Research Laboratories, Wright-Patt. AFB

- Researched bulk-heterojunction organic photovoltaic cells
- Presented thesis research at American Chemical Society CeRMACS Conference (6/2010)

Grants, Honors, & Awards

2012 - 2014 Open Data IGERT Fellow, University of Michigan/NSF

2011 - 2012 William F. Hawkins Fellow, University of Michigan

2010 - 2011 Tau Beta Pi Geico Scholar

Professional Organizations

2014 - Chapter Advisor, Tau Beta Pi, MI Γ Chapter

2009 - 2011 President, Tau Beta Pi, OH Θ Chapter