

Frederick Hohman

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Doctor of Philosophy (Ph.D.) in Computational Science and Engineering

Aug 2015 – Present

- Adviser: Professor Surya Kalidindi
- Interests: Data science, visual analytics, computational mathematics, material informatics

University of Georgia

Athens, GA

Bachelor of Science (B.S.) in Mathematics, Physics

Aug 2011 – May 2015

- Thesis: “3D Printing the Trefoil Knot and its Pages”
- Area of Emphasis in Applied Math
- Overall GPA: 3.84 / 4.00, Magna Cum Laude

RESEARCH EXPERIENCE

Graduate Research Assistant

School of Computational Science and Engineering

Georgia Institute of Technology, Atlanta, GA

Jul 2015 – Present

- Project: Microstructure Informatics
- Applying data science to speed up the process of new material characterization, development, and manufacturing to meet needs of national Materials Genome Initiative.
- Research areas: Data science, material informatics, statistics

Undergraduate Researcher

Department of Mathematics

University of Georgia, Athens, GA

Jan 2014 – May 2015

- Project: 3D Printing the Trefoil Knot and its Pages
- Programmed, designed, and 3D printed 34-piece, color-coordinated, and magnetized 3D puzzle exposition of the trefoil knot. Posted derivative models online and have received 8,000+ views and 1,500+ downloads.
- Research areas: Computational math, 3D modeling, topology, visualization, mathematical exposition

Features and Presentations

- Invited to post on Wolfram Community and received 7,000+ views
- Presented at 2014 and 2015 UGA Undergraduate Research Symposium
- Featured in UGA Mathematics Department yearly state of the department newsletter
- Attracted press from 3D printing community

REU in Mathematics and Computational Science

Department of Engineering

Fairfield University, Fairfield, CT

Jun 2014 – Aug 2014

- Project: Numerical and Experimental Comparison of Oceanic Overflow
- Directly compared numerical solutions to designed lab-scale experiments to model specific ocean phoneme. Configured MIT General Circulation Model on a linux computer cluster to parallel compute numerical simulations to be used in pre/post-processing data analysis.
- Research areas: Computational fluid dynamics, data analysis and visualization, applied mathematics

Features and Presentations

- Published abstract in 2014 American Physical Society Division of Fluid Dynamics
- Presented at 2014 American Physical Society Division of Fluid Dynamics
- 1st place at 2015 Joint Mathematical Meeting Undergraduate Poster Session in Computational Math
- Presented at Mini-Conference at Yale University, Brown University, and Los Alamos National Lab

SKILLS

Mac OS X, Windows, Unix Command Line

Programming: Python, Mathematica, Matlab, C

Web: \LaTeX , HTML, CSS, Markdown, Jekyll, Github

Design: Pixelmator, Blender, Meshlab, Makerware

HONORS & AWARDS

President's Fellowship, Georgia Institute of Technology

2015 – 2018

CURO Research Graduation Distinction, University of Georgia

2015

CURO Research Assistantship, University of Georgia

2014

Presidential Scholar, University of Georgia

2013

Dean's List and HOPE Scholarship, University of Georgia

2011 – 2015

Eagle Scout Award

2009

WEBSITE

Designed, developed, and maintaining fredhohman.com. Displays project expositions and blog posts by using a static site generator to serve code and content publicly on Github.