Fred 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, computational mathematics, visualization, 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 development, characterization, and manufacturing to meet needs of national initiative.
- Research areas: Data science, material informatics, statistics, dimensionality reduction

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
- 1^{st} place at 2015 Joint Mathematical Meeting Undergraduate Poster Session in Computational Math
- Presented at Mini-Conference at Yale University, Brown University, and Lost Alamos National Lab

SKILLS

Mac OS X, Windows, Unix Command Line
Programming: Mathematica, Matlab, (Developing: Python, 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.