GEORGE SIVULKA

Stanford University - Physics and Mathematical & Computational Science B.Sc. Candidate
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Honors & Special Accomplishments — Date / Location

NASA's New York City Research Initiative (NYCRI) Achievement Award — August 2014
COMSOL Multiphysics Conference 2015 Best Poster by Popular Choice Award — October 2015
- Research nominated by computational simulation experts from around the world

Bausch + Lomb Honorary Science Award — September 2015
Department of Energy's National Science Bowl
- NYC Regional Champion; Nationwide Finalist (Top 10) at Nationals — May 2015

3.93 First Semester GPA (19 units out of a 20 unit maximum course load) — December 2016

School Extracurricular Activities

Stanford Student Space Initiative Member — September 2016
- Structural Aerospace and Avionics for Rocketry and High Altitude Balloons

CS + Social Good Member — September 2016

Relevant Skills

Programming - Java, C++
- Data Analysis - MATLAB, R, JavaScript - d3.js — Since 2014
- Web Development - JavaScript, HTML5, CSS3 — Since 2009

Simulation Technologies - COMSOL Multiphysics (RF and Fluid Dynamics Modules) — Since 2014

Work/Research Experience

NASA Goddard Space Flight Center — New York, NY
Research Intern — Summers of 2014 & 2015
Subsurface Imaging of Electromagnetically Semi-Penetrable Hazardous Objects
Project Responsibilities:
- Creation and manipulation of COMSOL Multiphysics simulations
  - Specifically Electromagnetic Wave Simulations in the RF Model
- Vector Mathematics and Analysis in MATLAB
  - Helmholtz Equation, Plane Wave Equation, Finding Scattering Width Cross Section
- Scientific Presentation and Writing

Related Press:
- *Passion for Data Science Fuels One Student's Hunger to Change World*
  ↳ http://www.regis.org/article.cfm?id=5030
- *COMSOL Conference 2015 Boston Award Winners*
  ↳ https://www.comsol.com/blogs/comsol-conference-2015-boston-award-winners/

Mount Sinai Medical System — New York, NY
Data Analyst/Research Assistant — Sept 2014 - August 2016
Bioinformatics Analysis: Visualizing Transmission Patterns of Clostridium Difficile
Project Responsibilities:
- Programming multi-platform data visualizations in D3.js
  - Analyzing and outlining disease transmission pathways
  - Quantifying said transmission routes to target negligent caretakers and reduce infection risk

NASA's International Space Apps Hackathon — New York, NY
Founder/Lead Organizer — Summer of 2015
Organized and founded the first two-day high school space and data-driven hackathon with The NASA Office of Open Innovation. — spaceappsnextgen.com
- Led an organizing team of NASA volunteers to help involve and mentor diverse populations of students
- Raised and allocated over $10K in support