James Gerity

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`https://github.com/snoopjedi`

Education

2011-2018 (expected)	**PhD, Physics** Texas A&M University (College Station, TX) Research interests: particle-in-cell simulation of electron cooling dynamics, design of cost-effective superconducting magnets for scientific, industrial, and medical applications.
2007-2011	**B.S. Physics, B.S. Mathematics** University of Maryland, Baltimore County (Baltimore, MD)

Work Experience

2011-Present Research Assistant, Texas A&M University (College Station, TX)

Conducted research on improvements to particle accelerators with the Accelerator Research Laboratory. Responsibilities included designing and running simulations (multiphysics, finite elements, particle-in-cell), analyzing results and producing summary plots, and mentoring new graduate and undergraduate students.

2008-2011 IT Administrator, Leonard Paper Company (Baltimore, MD)

Served as head administrator, responsible for ~100 desktop workstations, ~40 laptops, Oracle and SQL databases, and AIX, Windows, and Linux servers. Responsibilities included interacting with users to diagnose and resolve computer problems, automating administrative processes and analytics reporting, and advising company management on long-term IT decisions (e.g. software upgrades, telephony, hardware purchasing).

Programming Languages and Skills

Python: proficient with the SciPy stack, predominantly numpy and matplotlib. Exposure to most of the standard libraries. Skilled in managing a development environment using pip, Anaconda, Vagrant.

Shell/awk scripting, GNU utilities: Experience with Linux/Unix environments, creation of scripts for process automation and data wrangling.

Javascript: Familiarity with jQuery, d3.js, three.js in the browser. Some experience using Node.js for server-side applications using e.g. Socket.io.

Other proficiencies: C++, R, MATLAB, Mathematica, HTML/CSS, image editing.

Other

GitStub.org	Chrome browser extension that provides repository recommendations for GitHub users. Created in October 2016 for HackRice, where it won 2nd place.