

Daniel S. Driver

2437 Shattuck Ave. Apt. 12
Berkeley, CA 94704

(858) 736-4412
danielsdriver@berkeley.edu

EDUCATION

University of California, Berkeley
B.A. Physics May 2011 (GPA: 3.92)
M.S. Mechanical Engineering: May 2013
Ph.D. Mechanical Engineering: Expected December 2015

Research Experience

Graduate Researcher, UCB 6/11-present

- Computational Material Research Lab
- Invented Dan++ a Domain Specific Language for Scientific Computing
- Multi-physics simulations for Additive Manufacturing
- DEM-FEM coupled systems with ALE for large deformations
- Post-processing in wet printing for nano-particle self assembly

Graduate Researcher, Lawrence Livermore National Lab 6/15-8/15

- Multi-physics simulations of laser sintering/melting
- Discrete Element(DEM) simulations of powder packing
- DEM enhancements to ALE3D for simulations of melting powder bed

Materials And Technology, Siemens Energy 6/14-8/14

- Multi-physics Simulations for Novel Casting Methods
- Electro/Magneto-Hydrodynamics for Manufacturing
- Invention Disclosure and Possible Patent

Graduate Researcher, Lawrence Berkeley National Lab 6/13-8/13

- Simulations of Next Generation Light Source(NGLS) beam line
- Model improved and written in C with Python interface
- ~40,000X faster than previous matlab version

Publications

- Driver, Daniel et al., New generation of LLRF and beam-based feedback stability models, Low-Level Radio Frequency Workshop, Oct. 2013

Skills and Projects

- Languages: Python, Fortran90, C, Cuda, OpenMP, Matlab, LabVIEW, Arduino
- Programs: Linux, SolidWorks, LaTeX, Lyx, Comsol, StarCCM+, ALE3D
- Proficient machinist with working knowledge of gcode

Activities and Awards

**Phi Beta Kappa, Physics Dept. Academic Scholarship(Spring 2010),
LLNL 1st Place Poster, North Am. Unicycle Basketball Champion**