

# Jeffrey Robert Hammel

[k0scist@gmail.com](mailto:k0scist@gmail.com)

347-513-5677

639 W. 173 St. Apt. #11D

New York, NY 10032

## Summary

Software engineer with background in web development; the open source software community; systems tools; scientific computation; computational geometry. Strong interest in application development and architecture using forward-facing technologies. Searching for a position that matches my skills and interests in a quality work environment.

## Software Development Experience

### Software Engineer - The Open Planning Project

*August 2006 - January 2010*

- Developed web applications using a wide variety of web frameworks and tools
- Participated actively in several open-source communities, including Python, Trac, and Zope
- Deployed and maintained web sites and internal software systems
- Documented software and operations procedures

Portfolio: <http://k0s.org/portfolio/software.html>

## Research Experience

### Graduate Student Researcher - Plasma Theory and Simulation Group, University of California at Berkeley

*August 2001 - August 2006*

- Computationally modeled plasma resonances and DC discharges for plasma processing applications
- Expertise in numerical methods with emphasis on computational geometry, parallel processing, and efficiency
- Served as system administrator of a cluster of research computers

Portfolio: <http://ptsg.eecs.berkeley.edu/~jhammel>

### Research Assistant - Computational Gas and Plasmadynamics Laboratory, Worcester Polytechnic Institute

*June 2000 - August 2001*

- Development of an electrostatic solver using computational geometry
- Computational modeling of rarified gas and plasma flows
- Extended gas model to accomodate more complex gases

## Teaching Experience

### **Instructor, Part Time - Art Institute of California in San Francisco** *January - Summer 2006*

Taught undergraduates operating systems, design patterns, and data structures in the Visual and Game Programming department. Lectured and developed curricula.

### **Graduate Student Instructor - University of California at Berkeley**

**E170B: Introduction to Modeling and Simulation II, Professor Verboncoeur** *Spring 2006*

Instructed students in computational simulation methodologies and MATLAB

**EE117: Electromagnetics, Professor Gustafson** *Fall 2001*

Organized discussion sections and supervised labs

## Education

### **University of California at Berkeley**

*August 2001 - August 2006*

Ph. D., Electrical Engineering and Computer Science

*All but dissertation; left to pursue position at The Open Planning Project*

### **Worcester Polytechnic Institute**

*June 2000 - August 2001*

Master of Science, Mechanical Engineering

### **Worcester Polytechnic Institute**

*August 1996 - May 2000*

Bachelor of Science, Mechanical Engineering

National Merit Scholar

Internship - NASA Glenn Research Center

*Summer 1999*

## Proficiencies

**Interests:** web application development, software architecture, parallel computing, computational geometry

**Languages:** Python, C++, JavaScript, HTML, CSS, bash, SQL, LaTeX, MATLAB

**Protocols:** HTTP, WSGI, MPI

**Frameworks:** Pylons, Paste, Zope, Plone, jQuery, Trac

**Tools:** Firebug, gdb, valgrind

## Publications

- J. Hammel, K. Kovalev, N. A. Gatsonis, "Unstructured Adaptive Monte Carlo Simulations of Flows in Micronozzles", AIAA Paper 2001-2891, presented at the 35th AIAA Thermophysics Conference, Anaheim, CA, June, 2001.
- Jason R. Potts, Stephen W. Pierson, Paul P. Mathisen, Jeff R. Hammel, Vlad C. Babau, "Wind Energy Resource Assessment of Western and Central Massachusetts", AIAA Paper 2001-0060, 2001.