***ALISA GAIL NEEMAN***

Computer Science Dept.
University of California
1156 High Street
Santa Cruz, CA 95064

aneeman@cse.ucsc.edu

**EDUCATION:**
University of California, Santa Cruz, Ph.D., Computer Science, *Visualization Techniques for Computational Mechanics*, anticipated December 2008

State University of New York at Binghamton, M.S., Computer Science, *Remote Isosurface Visualization With Lossless Compression*, August 2003

State University of New York at Binghamton, B.S., Computer Science, Magna Cum Laude, June 2001

**RESEARCH EXPERIENCE:**
**Los Alamos National Laboratory**
06/2005 - 9/2005 *Graduate Student Researcher*
Extended a toolkit for volume visualization of Computed Tomography (CT) scan data to enable checking of existing machine parts for anomalies and for registering and comparing them to specifications.

**Storage Systems Research Center**
06/2004- 12/2004 *Graduate Student Researcher*
Wrote core data structures for linking file system. Added new system calls to Linux kernel, modified kernel module to pass new calls to user space file system.

**Academic Computing**
05/2001 - 08/2002 *Graduate Assistant*
Internet2 Facilitator. Support/liaison for principal investigators, helped write grant proposal, provided tech support for videoconferencing and performed campus-wide bandwidth testing. Reported on-campus research activities on website.

**TEACHING EXPERIENCE:**
09/2003 - 12/2004 *Teaching Assistant, UC Santa Cruz*
Data Structures (in C), Algorithms, Computer Security, Visualization and Animation. Created some homework assignments, ran lab including pedagogical and programming component, grading

2002 – 2004 *Teaching Assistant, SUNY Binghamton*
Internet Programming (Java), Network Security (Java/C), Data Structures (C++). Occasional substitute lecturer, created course module on packet sniffing for security course, grading, ran lab, student programming support

August 2002 *Instructor, SUNY Binghamton*
Kids Explore! Summer Science Camp, Created and delivered short course on HTML and webpage making (for 5th and 6th graders). Assisted students in the creation of personal web pages about their Science Camp experiences which was collated into a website.

**HONORS:**
- Chancellor's Dissertation Year Fellowship
- GAANN Fellowship
- Alpha Chi Honor Society member
- N.Y. State Regents Scholarship Recipient
- NEES Young Researcher Travel Award
- Rated 3rd best of 31 speakers at the Oklahoma Supercomputing Symposium
- Empire State Games silver medalist, Judo

**RESEARCH INTERESTS:**
- Scientific visualization (scalars, vectors, tensors)
- Parallel and remote visualization
- File system support for scientific data mining/visualization
- Computer graphics

**AWARDS AND GRANTS:**
*Diversity Grant, Computer Engineering Department, UC Santa Cruz*
EWomen grant for activities to support and retain graduate women in engineering, $1000 2005-2006

**SERVICE:**
- Reviewer, IEEE Pacific Visualization Symposium, 2007
- Reviewer, IEEE Visualization, 2006
- Reviewer, IEEE Transactions on Computer Graphics and Visualization, 2006
- President, eWomen 2005-2006

**RESEARCH ACTIVITIES:**

**PUBLICATIONS - PEER REVIEWED:**

1. "Decomposition and Visualization of Fourth-Order Elastic-Plastic Tensors," Alisa Neeman, Rebecca Brannon, Boris Jeremić, Allen Van Gelder and Alex Pang. IEEE/EG Symposium on Volume and Point-Based Graphics, August 10-11, 2008, Los Angeles, California.

2. "Visualizing Tensor Fields in Geomechanics," Alisa Neeman, Boris Jeremic, Alex Pang, *IEEE Visualization* (2005).

3. "Richer File System Metadata Using Links and Attributes" A. Ames, N. Bobb, S.A. Brandt, A. Hiatt, C. Maltzahn, E.L. Miller, A. Neeman, D. Tuteja, *13th NASA Goddard Conference on Mass Storage Systems and Technologies* (2005).

4. "Fast Remote Isosurface Visualization with Chessboarding," A. Neeman, P. Sultycke, K. Ghose, *Eurographics Symposium on Parallel Graphics and Visualization*, 75-82(2004).

**PRESENTATIONS, POSTERS AND ABSTRACTS**

1. "Decomposition and Visualization of Fourth-Order Elastic-Plastic Tensors", UC Santa Cruz Annual Graduate Research Symposium, May 19, 2008

2. "On Time Visualization of Simulations in OpenSees with VEES," Network for Earthquake Engineering Simulation (NEES) 5th Annual Meeting, Snowbird, UT, June 19, 2007.

3. "Visualization for Computational Mechanics," IEEE VAST Doctoral Colloquium, Baltimore, MD, November 2, 2006.

4. "Visualization of Geomechanics Tensor Data," Oklahoma Supercomputing Symposium, Norman, OK, October 4, 2006.

5. "OpenSees, VEES, and XML: Visualization and Model Archiving," OpenSees (Open System for Earthquake Engineering Simulation) Developer Workshop, UC Berkeley, Richmond, CA, August 14-16, 2006.

6. "Internet2 – What Can It Do For You?," Computer Science Colloquium Series, Binghamton, NY, September, 2001.