Matthew E. X. Delgado

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Focus

To contribute my quantitative and analytical skills I developed as a graduate student in Physics to a career in social networking.

Technical Skills

Programming Languages: C, C++, Python, LaTeX
Software Applications: Excel, MS Word, Powerpoint, Mathematica, Origin, Gnuplot
Operating Systems: Unix, MacOS X, Windows 2000/XP, Linux
Selected Courses: Computational Physics, Probability and Statistics

Education

Ph.D. in Physics, University of Illinois at Urbana-Champaign 2009

M.S. in Physics 2004

B.S. in Physics, University of Texas at Austin, *special honors* 2003

Experience

Graduate Research Assistant, University of Illinois 2004 - 2009

- Modeled non-equilibrium material physics in C++ using stochastic and parallel programming techniques, and automated statistical data analysis.
- Uncovered new ferroelectric states and proposed a new model of microscopic dynamics by analyzing sensitive pyroelectric current measurements.
- Presented work at 3 professional conferences, weekly group meeting and collaborated on 3 scientific publications.

Graduate Teaching Assistant, University of Illinois 2004 - 2009

- Taught 4 different undergraduate physics courses emphasizing qualitative and quantitative problem solving techniques.
- Conducted office hours assisting students with weekly homework assignments and test preparation.
- Graded 90+ lab reports and quizzes weekly and maintained gradebook.
- Ranked excellent each year taught.

Undergraduate Research Assistant, University of Texas 2001 - 2003

- Partnered with research assistant to design and construct novel atomic force microscopy probe using visible spectrum fiber optic cable.

Undergraduate Research Assistant, Oak Ridge National Laboratory Summer 2001

- Fabricated novel atomic force microscopy cantilever tip for use in surface tension measurements.
- Verified cantilever tip quality using optical and scanning electron microscopes.

Conference Presentations

Field Dependence of Glassy Freezing in a Relaxor Ferroelectric American Physical Society March Meeting, Pittsburgh, PA 2009.

"Aging Mechanism in Relaxor Ferroelectric $(0.92)PbMg_{1/3}Nb_{2/3}O_3$-$(0.12)PbTiO_3$," American Physical Society March Meeting, New Orleans, LA 2008.

Posters Presentations

"Crackling Noise and the Random Field Ising Model at Finite Temperature," 6^{th} Understanding Complex Systems Symposium, University of Illinois, Urbana-Champaign, May 2006