

## Sorelle A. Friedler

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Department of Computer Science  
A.V. Williams Building  
University of Maryland  
College Park, MD 20742

### EDUCATION

**University of Maryland, College Park, MD** September 2005 - present  
Computer Science PhD Program

**University of Maryland, College Park, MD** Received M.S., December 2007  
Computer Science. GPA 3.8. Course work included: Computational Geometry, Analysis of Algorithms, Theory of Programming Languages, Gene Finding and Genome Assembly, and College Teaching.

**Swarthmore College, Swarthmore, PA** Received B.A., May 2004  
Major: Computer Science. Minor: Mathematics. GPA in major: 3.7. Course work included: Unix & C, Object Oriented Programming, Structure and Interpretation of Computer Programs, Algorithms, Theory of Computation, Compilers, Operating Systems, Computer Architecture, Multivariable Calculus, Discrete Mathematics, Modern Algebra, and Real Analysis.

**University of Ghana, Legon, Ghana** Spring 2003

### AWARDS

**AT&T Labs Fellowship Program** 2006-2009  
Provides tuition, stipend, and conference funds. Awarded to “outstanding under-represented minority and women students.”

**Verizon Fellowship** 2006-2007  
Awarded for outstanding academic achievement.

**Graduate School Fellow, University of Maryland** 2005-2007

**Member, Sigma Xi Scientific Research Society** 2004 to present

### JOURNAL PAPERS

Sorelle A. Friedler, Yee Lin Tan, Nir J. Peer, and Ben Shneiderman. *Enabling teachers to explore grade patterns to identify individual needs and promote fairer student assessment*. *Computers & Education*, to appear 2008.

### RESEARCH EXPERIENCE

#### **Computational Geometry**

Spring 2006 to present. Work with Professor David Mount on research problems in the area of Computational Geometry. Specifically on the intersection of Kinetic Data Structures and Robust Statistics.

#### **Integer Programming**

Summer 2006 to present. Work with Aaron Archer at AT&T Labs to implement a solution to the survivable network design problem for large graphs.

#### **Programming Languages**

Spring 2006 to present. Work with Assistant Professor Jeff Foster to develop a system to track type qualifiers dynamically in Java programs.

**Computer Science Senior Conference, Swarthmore College Computer Science Dept.**  
Spring 2004. Work independently to produce a survey paper with regards to Small-World Networks and their categorization based on the ratio of the characteristic path length to the clustering coefficient.

**Mathematics Research, Swarthmore College Mathematics Department**

Summer 2003. Worked with Professor Janet Talvacchia to produce an unpublished paper entitled *Sufficient Condition for a 4-Dimensional Vector Orbi-Space to Admit a Faithful Symplectic  $SU(2)$  Action.*

**TEACHING AND WORK EXPERIENCE**

**Instructor, University of Maryland, College Park**

Summer 2007. Teach CMSC330 - Organization of Programming Languages. Design and implement curriculum and projects, hold office hours, grade papers, and oversee one teaching assistant.

**Middle School Mathematics Teacher, Springside School, Philadelphia**

Fall 2004 to Fall 2005. Design and implement curriculum for four classes of students in grades five through eight to teach topics including two-and three-dimensional geometry, pre-algebra, number theory, probability, and statistics.

**Teaching Assistant, University of Maryland, College Park**

Spring 2006. Teaching Assistant for CMSC311: Computer Organization. Hold office hours, organize, grade, and prepare projects.

Fall 2005. Teaching Assistant and Discussion Section Leader for CMSC212: Low-level programming concepts. Teach two discussion sections each of which meets for two one-hour sessions each week. Additional responsibilities include grading papers, implementing projects, and holding office hours.

**Computer Science Clinician, Swarthmore College**

Spring 2004. Hold weekly office hours for students in Structure and Interpretation of Computer Programs.

**System Administrator, Swarthmore College Computer Science Department**

Spring 2001 to Spring 2004. Work with other system administrators to maintain a network running Solaris and Linux for more than 450 academic users. Responsibilities include shell/Perl scripting, hardware and software support, security, client/server networking, teaching beginning classes on UNIX, and user support.

**SERVICE**

**Co-leader, Women in Computer Science, University of Maryland**

Fall 2006 to present. Co-leader for graduate student women in computer science group. Organize lunch discussions, potlucks, guest speakers, and orientation activities.

**Member, Department Education Committee, University of Maryland**

Fall 2008 to Spring 2009. Graduate student representative to the Department Education Committee. Elected position.

**Member, Graduate Admissions Committee, University of Maryland**

Spring 2008 to present. Served on the graduate admissions committee for the Computer Science department.

**Member, Graduate Visit Day and Orientation Committee, University of Maryland**

Spring 2007 to Fall 2007. Organized visit day and orientation for the Computer Science department.

**Member, Computer Science Department Council, University of Maryland**

Fall 2006 to Spring 2007. Graduate student representative to the Department Council. Elected position.

**Founder and co-leader, Co/Motion, Swarthmore College**

Fall 2001 to Spring 2004. Co/Motion is a summer camp and yearlong program for 10-13 year-old daughters of Swarthmore College faculty and staff, designed to bridge the gaps between these groups while helping the girls build self-esteem. Planned and executed curriculum, wrote grants, did fundraising and recruiting, led counselor meetings, handled insurance concerns, and communicated with parents.