# JAMES PFEIFFER

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## OBJECTIVE

To use my mathematical training and programming skills to make the world better for people.

## EDUCATION

*Mathematics PhD, University of Washington* (expected) June 2014
Advisor: Rekha Thomas. Research topics:

- Semidefinite programming and combinatorial optimization
- Sums of squares relaxations and application

*Mathematics BS, University of California, Davis* June 2009

## EXPERIENCE

*Instructor* June 2011 - Present
Mathematics Department, University of Washington

- Taught courses in linear algebra and differential equations.

*Software Intern* March - May 2012
Future Advisor (futureadvisor.com)

- Assisted in implementing a portfolio optimization component for a financial planning website.

*Instructor* June - July 2010
Robinson Center, University of Washington

- Created and taught a discrete mathematics course for gifted middle and high school students.

*Teaching Assistant* September 2009 - March 2011
Mathematics Department, University of Washington

- Led discussion and worksheet sessions for calculus classes.
- Held office hours and graded student work.

*Research Assistant* June-August 2007, 2008
Mathematics Department, University of California, Davis

- Worked with professors and other students on mathematics research.
- Tested conjectures via simulations, and implemented proposed algorithms.

*Teaching Assistant* Summers 2006, 2007, 2009
Center for Talented Youth

- Assisted with math enrichment classes at a summer camp.
- Led nightly discussion/homework sessions.

## COMPUTER SKILLS

Programming - I use Python currently. In the past I have used C, Perl, Ruby, and Lisp, and am happy to learn any language.
Software - I am comfortable with Linux on servers, and have written personal projects on Google App Engine, and with Django on my own server. I have used the packages Matlab and Sage.

## PUBLICATIONS

*A Semidefinite Approach to the $K_i$ Cover Problem.* J. Gouveia and J. Pfeiffer. Submitted to Operations Research Letters, 2013.
*Bootstrap Percolation on the Hamming Torus.* J. Gravner, C. Hoffman, J. Pfeiffer, and D. Sivakoff. Submitted to Annals of Applied Probability, 2012.