JAMES PFEIFFER

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OBJECTIVE

I'm graduating from the UW with a math PhD in December, and I'm looking to make a career change into software development due to a love of programming as well as algorithms and math.

EDUCATION

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

- Semidefinite programming
- Sums of squares relaxations and applications
- Combinatorial optimization

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.

PUBLICATIONS

A Semidefinite Approach to the K_i Cover Problem. J. Gouveia and J. Pfeiffer. Preprint (2012).
Bootstrap Percolation on the Hamming Torus. J. Gravner, C. Hoffman, J. Pfeiffer, and D. Sivakoff. Submitted to Annals of Applied Probability, 2012.

COMPUTER SKILLS

Programming languages: I use mostly Python now. I appreciate both Lisp and C for their elegance. I have used Ruby, Perl, and C++ as well in the past.

Software: Sage (open source math software), MATLAB, Git, Linux. I've played with webhosting including a Linux server and Google App Engine.

Applied theory: I've used natural language processing and simulated annealing.