

Eric M. Radke

1359 S. Beverly Glen Blvd. Apt. B, Los Angeles, CA 90024
radke@math.ucla.edu | <http://www.math.ucla.edu/~radke>
(330) 212-8295

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Ph.D. Student, Applied Mathematics; GPA: 3.80

Los Angeles, CA
January 2006 - Present

- Research focus: Nonlinear programming, numerical solution of partial differential equations, graph theory, VLSI physical design.
- Other interests: Analytical solution of partial differential equations, linear programming, stochastic optimization, mathematical finance, image processing.
- National Science Foundation VIGRE Fellowship recipient.

Master of Arts, Applied Mathematics

December 2005

CASE WESTERN RESERVE UNIVERSITY

Bachelor of Science, Mathematics; Minor: Economics; GPA: 3.92

Cleveland, OH
May 2004

- Scholarships: Trustee's (full tuition), McDermott, Inc., Valley View WHYS.
- Honors: Dean's High Honors, National Dean's List, Summa Cum Laude.

SAT: M: 800 V: 700 **GRE:** Q: 800 V: 590 W: 6.0 **GRE Math Subject:** 750

SKILLS

- Expertise in optimization methods with experience in implementation on VLSI placement problem and TWTA design.
- Experience solving partial differential equations using finite differences and finite elements, incorporating multigrid techniques.
- Substantial experience programming in Matlab and C++; additional experience using Meta Language, VBA, and Python.
- Experience using Windows, Macintosh, Linux operating systems; Mathematica, Matlab, Maple scientific calculators; and Microsoft Office.

EXPERIENCE

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Research Assistant, VLSI Multiscale Placement Group

Los Angeles, CA
September 2005 - Present

- Implemented stochastic and nonlinear programming techniques in Matlab and C++ and developed a rigorous framework for a novel optimization scheme using net weighting.

Instructor/Teaching Assistant

September 2005 - Present

- Instructor in discrete math; TA in differential equations, optimization, and numerical analysis.
- Robert Sorgenfrey Distinguished Teaching Assistant Award recipient.

Research Assistant, UAV Path Planning Project for Raytheon Corp.

June - August 2005

- Applied techniques using partial differential equations originally developed for image segmentation to determine the optimal path of flight of unmanned vehicles in Matlab.

NASA GLENN RESEARCH CENTER

Intern, Communications Division, Electron and Optical Devices Branch

Cleveland, OH
May - August 2004

- Implemented stochastic optimization techniques in traveling wave tube amplifier design and developed and implemented an original variant of simulated annealing in C++; for details see http://www.math.ucla.edu/~radke/NASA_article.pdf.

UNIVERSITY OF ILLINOIS – URBANA-CHAMPAIGN AND UNIVERSITY OF UTAH

Research Assistant, National Science Foundation VIGRE REU Program

Urbana, IL and Salt Lake City, UT
May - August 2003

- Wrote a program in Python to find torsion groups of elliptic curves efficiently.

ADDITIONAL INFORMATION

- Membership in American Mathematical Society, Society for Industrial and Applied Mathematics, and Golden Key International Honor Society.
- Two-year captain and four-year letterwinner, Case Western Reserve men's varsity tennis.