

GEORGE D. BISSIAS

Computer Science Building
140 Governors Drive
University of Massachusetts
Amherst, MA 01003-9264

Phone (413) 218-0624
Fax (413) 545-1249
Email gbiss@cs.umass.edu
Website www.cs.umass.edu/~gbiss

My passion is for solving computational problems of any flavor. I combine a deep theoretical understanding of modern approximation theory with extensive practical knowledge: everything from rapid prototyping to deployment. I'm particularly strong at working with large data sets, real-time software systems, and Rich Internet Applications.

EDUCATION

University of Massachusetts Amherst, Amherst, Massachusetts May 2004 – Expected July 19 2010
Ph.D. candidate
Cumulative GPA of 3.82 / 4.00

University of Massachusetts Amherst, Amherst, Massachusetts August 2001 – May 2004
Masters of Science Degree in Computer Science

University of New Mexico, Albuquerque, New Mexico August 1999 – May 2000
Bachelors of Science Degree in Mathematics
Graduated Cum Laude

United States Military Academy at West Point, West Point, New York June 1997 – July 1999

ACADEMIC HONORS & AWARDS

United States Military Academy, Inducted Member of Phi Mu Epsilon
Mathematics Society May 1999

University of New Mexico, Named Outstanding Graduating Senior in Mathematics at the
University of New Mexico May 2000

EXPERIENCE

- **Commercial Development:**

- built and deployed highly interactive Rich Internet Application in javascript
- developed server side web application using Django
- helped develop and deploy application for iPhone OS

- **Security:** knowledgeable in computer and network security including cryptographic systems and intrusion detection

- **Teaching:** served as a teaching assistant for *Programming Methodology* (Spring 2010), *Introduction to Computer and Network Security* (Fall 2009 and Spring 2003), *Introduction to Computation* (Fall 2002); server as instructor for *Precalculus* (Fall 2002)

SKILLS

- **Complex Program Development:**
 - experienced with developing and solving mathematical optimization problems such as linear, quadratic, and semidefinite programs
 - built packet level network simulator implementing cutting edge routing algorithm
 - exceptionally skilled at working with large and messy data sets
 - wrote, deployed, and maintained highly parallel applications operating on large data sets using Sun Grid Engine and Condor environment
- **Languages:** Python, Java, Matlab, C, C++, scheme, Objective-C, shell scripting, PHP, javascript
- **Software / Platforms:** Eclipse, highly proficient in Linux environment, Mac OSX user, proficient in Windows, familiar with apache and nginx web servers, experienced with Google Web Toolkit

PUBLICATIONS

- Finding Weak Points in Networks**, by George Dean Bissias, Brian Neil Levine, and Ramesh Sitaraman.
Technical Report UM-CS-2010-037, 2010.
- Frequency-Based Relay Placement in Mobile Networks**, by George Dean Bissias, Brian Neil Levine, and Ramesh Sitaraman.
Technical Report UM-CS-2009-045, 2009.
- Surviving Attacks on Disruption-Tolerant Networks without Authentication**, by John Burgess, George Dean Bissias, Mark Corner, and Brian Neil Levine.
International Symposium on Mobile Ad Hoc Networking & Computing, September 2007.
- Bounding Damage From Link Destruction with Application to the Internet (extended abstract)**, by George Dean Bissias, Brian Neil Levine, and Arnold Rosenberg.
In Proceedings of ACM SIGMETRICS, June 2007.
- Privacy Vulnerabilities in Encrypted HTTP Streams**, by George Dean Bissias, Marc Liberatore, David Jensen, and Brian Neil Levine. *In Proceedings of Privacy Enhancing Technologies Workshop (PET)*, pages 1–11
May 2005.
- Nonlinear Diffusion Scale-Space and Fast Marching Level Sets for Segmentation of MR Imagery and Volume Estimation of Stroke Lesions**, by Jerod Weinman, George Dean Bissias, Joseph Horowitz, Edward M. Riseman, Allen R. Hanson. *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, pages 496–504
May 2003.

REFERENCES

Brian Neil Levine
Assoc. Professor, UMass Amherst
140 Governors Drive
Amherst, MA 01003-9264
Phone (413) 577-0238
Fax (413) 545-1249

Ramesh Sitaraman
Assoc. Professor, UMass Amherst
140 Governors Drive
Amherst, MA 01003-9264
Phone (413) 545-3279
Fax (413) 545-1249

Khashayar Rohanimanesh
Senior Research Scientist, eBay
2145 Hamilton Avenue
San Jose, CA 95125
Phone 408-376-4959
Fax 408-376-4839