

## Zia Khan

---

### CONTACT INFORMATION

451  $\frac{1}{2}$  Jersey Ave.  
Jersey City, NJ 07302  
Voice: (201) 414-8770  
E-mail: zkhan@cs.princeton.edu  
WWW: www.cs.princeton.edu/~zkhan

### SUMMARY

- Experience in research and development of technologies in computer science and biology.
- Self directed, works effectively either on a team or independently on complex and poorly defined problems.

### EDUCATION

**Princeton University**, Princeton, NJ

2nd year Ph. D. student, Computer Science, Research Focus: Computational Biology  
Advisor: Mona Singh

**Carnegie Mellon University**, Pittsburgh, PA

B.S., Computer Science, 2002  
B.S., Biology, 2002, Mellon College of Science Research Honors

### PROFESSIONAL EXPERIENCE

**Sarnoff Corporation, Vision Technologies Group**, Princeton, NJ

*Associate Member of the Technical Staff, Algorithms Developer*, December 2005 - September 2006  
*Intern*, May 2005 - November 2005

Conducted research in applied computer vision. Improved and optimized a real time algorithm for matching vehicles between non-overlapping cameras in a large camera surveillance network.

**Georgia Institute of Technology**, Atlanta, GA

*Research Scientist 1*, July 2002 - August 2004

Conducted research in computer vision and machine learning. Designed real time visual tracking systems.

### SELECTED PUBLICATIONS

**MCMC Data Association and Sparse Factorization Updating for Real Time Multitarget Tracking with Merged and Multiple Measurements**. Z. Khan, T. Balch, and F. Dellaert, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 28, No. 12, pp.1960-1972, Dec., 2006. (ISI Journal Impact Factor, top 10 out of over 300 Computer Science journals).

**A Rao-Blackwellized Particle Filter for EigenTracking**. Z. Khan, T. Balch, and F. Dellaert, *IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'04)*, 2004. Presentation acceptance rate 6.4% (77/1200).

### COMPUTER AND LAB SKILLS

Languages: C/C++, Ocaml, Java, MATLAB, R

Libraries: STL, BOOST C++

Algorithms: Experience programming Markov Chain Monte Carlo simulations of Bayesian posterior distributions, implementing, optimizing, and designing algorithms in computer vision and machine learning. Implementing and designing algorithms in computational biology and bioinformatics.

Wet Lab: Basic techniques (e.g. PCR, etc.)

### CITIZENSHIP

United States of America