

**Myung (Jin) Choi**  
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## Education

### Massachusetts Institute of Technology

Cambridge, MA

*Ph.D. Candidate, Electrical Engineering and Computer Science*

*Jun 2007 – Dec 2010 (expected)*

- Thesis title: *Hierarchical Graphical Models with Latent Variables*
- Research Assistant, Stochastic Systems Group (*Advisor: Alan Willsky*)
- Developed multiscale modeling framework to capture long-range correlations with sparse structure.
- Proposed probabilistic models to detect objects in images using hierarchical contextual information.
- Teaching Assistant, Course: Algorithms for Inference. Covers probabilistic inference and learning algorithms. Delivered recitations and created problem sets / exams.
- Relevant coursework (**GPA: 5.0/5.0**): Analytics of Finance; Finance Theory I; Microeconomic Theory and Public Policy; Discrete-Time Signal Processing; Stochastic Processes, Detection, and Estimation; Optimization Methods; Convex Analysis and Optimization

*S.M. Electrical Engineering and Computer Science*

*Sep 2005 – Jun 2007*

- Thesis title: *Multiscale Gaussian Graphical Models and Algorithms for Large-Scale Inference*
- Proposed multi-resolution models and algorithms to solve large-scale estimation problems efficiently.

### Seoul National University

Seoul, Korea

*B.S. Electrical Engineering*

*Mar 2001 – Aug 2005*

- Top rank in the School of Engineering (**GPA : 4.26/4.30**)

### University of California, Santa Barbara

Santa Barbara, CA

*Extension student.*

*Sep 2001 - Jun 2002*

## Work Experience

### D. E. Shaw & Co.

New York, NY

*Quantitative Analyst Intern.*

*May 2009 – Aug 2009*

- Applied machine learning techniques to estimate parameters in high-frequency stock trading.

### Microsoft – Live Labs

Redmond, WA

*Research Intern*

*Jun 2007 – Aug 2007*

- Developed algorithms that automatically extract useful information from semi-structured text.

### MIT Africa Information Technology Initiative

Nairobi, Kenya

*Instructor.*

*Jun 2006 – Jul 2006*

- As part of a five-member team, designed an intense six-week Java programming course and instructed 90 students at Strathmore University and Alliance High School.

### Seoul National University – Multimedia Application Processor Lab

Seoul, South Korea

*Undergraduate Research Assistant.*

*Mar 2005 – Jul 2005*

- Applied a Markov chain analysis to quantify the performance of a frame interpolation algorithm.

### Seoul National University – Signal Processing Lab

Seoul, South Korea

*Undergraduate Research Assistant.*

*Jan 2004 – Jul 2004*

- Designed a video database with improved key-frame extraction and sequence matching algorithms.

## Selected Awards and Honors

Samsung Scholarship Foundation - Graduate Research Fellowship

2005 – 2009

Samsung HumanTech Paper Award, Silver Award

2005

Korea Foundation for Advanced Studies - Undergraduate Scholarship

2003 – 2004

Asian Pacific Mathematics Olympiad, Silver Medal

2000

Korean Mathematical Olympiad, Bronze Medal

2000

## Skills

**Computer:** C/C++/C#, MFC, Java, Matlab, Python, Gawk, Shell script

**Language:** English, Korean

## Leadership

MIT EECS REFS – Peer Mediator and Counselor

2008 – present

Co-president of Graduate Women in EECS, MIT

2006 – 2007

Co-chair of Diversity Committee, EECS Graduate Students Association, MIT

2006 – 2007

## Publications

6 first author papers; 1 co-author paper; 1 first-author papers under review

A detailed list of publications is available upon request.