

# James J. Gardner

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## OBJECTIVES

I plan to work in a corporate or academic research environment where I can apply the theory I have studied and the research I have pursued during graduate school. I am primarily interested in developing novel techniques for relevance ranking structured and semi-structured documents, automatic techniques for structuring (meta-tagging or wrapping) text, and utilizing hierarchical information for searching and automatic-linking. In general, I enjoy applying Mathematical theory to solving real world problems with computers. The main topics of my interest are Information Retrieval, Graph Theory, Optimization, the Semantic Web, and the intersection of these topics.

## EDUCATION

Emory University, Atlanta, GA, USA  
PhD, Computer Science (Pending)  
Concentration in the intersection of Graph Theory, Information Retrieval, and Data Mining.

East Tennessee State University, Johnson City, Tennessee, USA  
Bachelor of Science, Mathematics (Honors) May 2005  
Concentration in Mathematical Sciences with primary studies in Combinatorics, Graph Theory, and Probability.

Bachelor of Science, Computer Science May 2005  
Concentration in Computer Science with primary interests in Algorithms and High-Performance Computing.

## EDUCATIONAL HONORS AND AWARDS

Member of Upsilon Pi Epsilon National Computer Science Honor Society; Member of Alpha Lambda Delta National Freshman Honor Society; Outstanding Junior Computer Science Award (2003-2004, ETSU); Edward L. Stanley Scholarship Endowment (2004, ETSU); Wilson-Hartsell Scholarship Endowment (2004, ETSU).

## RESEARCH PUBLICATIONS

NNexus: Towards an automatic linker for a massively-distributed collaborative corpus. (with Aaron Krowne and Li Xiong). Accepted to Workshop on Mobility, Collaborative Working, and Emerging Applications in association with the 2nd International Conference on Collaborative Computing:

Domination cover pebbling (with A. Godbole, A. Teguia, A. Vuong, N. Watson, and C. Yerger). Accepted to the Journal of Combinatorial Mathematics and Combinatorial Computing.

## RESEARCH EXPERIENCE

NNexus: A subject steered automatic linker for a collaborative corpus. June, 2006–Current  
Advisors: Aaron Krowne and Li Xiong. Funding: Google Summer of Code 2006 and Institute of Mathematical Statistics  
<http://aux.planetmath.org/nnexus>

EDIT: Extensible Data Interface Toolkit August, 2006–Current  
Advisor: Dr. Li Xiong. Funding: Research Assistantship from Emory University  
Involves automatically structuring text and ranking structured documents.

Open Source Cluster Application Resources (OSCAR) January–May, 2004  
Advisor: Dr. Phillip Pfeiffer. Funding: ETSU Student-Faculty Collaborative Grant, \$500.

Research Experience for Undergraduates in Random Discrete Structures. June–August, 2004  
Advisor: Dr. Anant Godbole. Funding: NSF.  
Focused on Palindromes under Markovian hypotheses, Domination cover pebbling, and Random Pebbling.

Implementing a LinuxBIOS for Cluster Computing. January–May, 2005  
Advisor: David Tarnoff. Funding: ETSU Student-Faculty Collaborative Grant, \$1000.

## PROFESSIONAL EXPERIENCE

*Research Assistant.* Emory University, Atlanta, GA, USA. August 2006–Current  
*Programmer.* PlanetMath.org (Google Summer of Code, 2006) June–August 2006  
*Graduate Assistant.* Emory University, Atlanta, GA, USA. August 2005–August 2006  
*Mathematics Tutor.* East Tennessee State University, Johnson City, TN, USA. January 2003–May 2004

## COMPUTER SKILLS

### LANGUAGES AND SOFTWARE

Love programming in Perl, but also proficient in C/C++ and Java. Have experience with Python, C#, x86 Assembly, and Visual Basic.

### OPERATING SYSTEMS

Favorite operating systems are Mac OS X and Linux.

### DATABASES

Use MySQL for most of my projects, but have experience with Oracle.

### CERTIFICATIONS

Obtained the following certifications before becoming a researcher/programmer: Microsoft Certified Systems Engineer; Microsoft Certified Professional; Network+ Certified Technician; and A+ Certified Technician

## REFERENCES

Dr. Li Xiong, Assistant Professor  
Dept. of Mathematics and Computer Science, Emory University  
lxiong@mathcs.emory.edu (404) 727-7962

Dr. James Lu, Associate Professor  
Dept. of Mathematics and Computer Science, Emory University  
jlu@mathcs.emory.edu (404) 727-7580

Dr. Anant Godbole, Professor and Chair  
Dept. of Mathematics, East Tennessee State University  
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Dr. Phil Pfeiffer, Assoc. Professor  
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