# Adina Crăiniceanu
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## EDUCATION

**Cornell University**, Ithaca, NY                                   Expected August 2005
    **Ph.D. in Computer Science, Minor: Managerial Economics**
        Chair of Doctoral Committee: Professor Johannes Gehrke
        Minor Advisor: Professor Jerome Hass
        Thesis Topic: Answering Complex Queries in Large Distributed Systems

**Cornell University**, Ithaca, NY                                   January 2004
    **Master of Science in Computer Science**

**University of Bucharest**, Bucharest, Romania                      July 1999
    **Master of Science in Computer Science**

**University of Bucharest**, Bucharest, Romania                      July 1997
    **Bachelor of Science in Computer Science, Minor: Mathematics**

## PROFESSIONAL EXPERIENCE

**Research Assistant, Cornell University**, Ithaca, NY          September 2001 – Present
- Investigate, create, and develop new methods and algorithms for answering complex queries in large, distributed, decentralized database systems.
- Implement new algorithms, build, debug and deploy a peer-to-peer system called Pepper on a network of more than 300 computers distributed throughout the world (Planet Lab). The code is written in C++ and has more than 60,000 lines of code.
- Design experiments to test system performance.
- Collect test data, analyze and interpret results.
- Author, co-author and publish research papers.
- Present research papers at top conferences and departmental seminars.
- Train and supervise 6 undergraduate students working at the system implementation.

**Teaching Assistant, Cornell University,** Ithaca, NY                      Fall 2003
- Head Teaching Assistant for ComS 432 - Introduction to Database Systems and ComS 433 - Practicum in Database Systems
- Helped the instructor in setting up the syllabus and time line for the course.
- Coordinated the other teaching assistants: scheduled office hours, assigned grading and recitation duties, ensured that homework assignments are graded and returned on time, ensured that the questions posted by students online, on the class newsgroup, are answered within 24 hours.
- Created the assignments, posted the solutions.
- Graded homework assignments and exams.
- Held office hours and answered questions send by email or posted on the newsgroup.

**Research Intern, IBM Almaden Research Lab**, San Jose, CA                Summer 2002
- Researched, designed and implemented an infrastructure allowing users to easily enhance their web content with dynamic capabilities. The infrastructure facilitates the development and deployment of new distributed applications. The infrastructure was

immediately used to support critical aspects of the YouServ system, a web hosting system currently deployed within the IBM intranet and used by over 1400 users.

**Research Intern, Reliable Network Solutions**, Ithaca, NY                Summer 2001
- Discussed with senior members of the team to determine application requirements.
- Designed and set up an SQL database to collect test data for Mariner/Astrolabe - a software for distributed system monitoring, management and data mining.
- Devised and implemented tools to analyze the data and produce the reports.

**Research Assistant, Iowa State University**, Ames, IA                Spring 2000
- Investigated algorithms for mining association rules from distributed relational databases.

**Programmer Analyst, Kepler**, Bucharest, Romania          March 1996 – December 1999
- Analyzed, designed, implemented and tested large software products, as part of teams of 3 to 15 people. Some of the projects were: maintenance and upgrade of banking software, development of an integrated management application for an animal nutrition company, migration of a huge warehouse management application from AS400 to a client-server environment.
- Consulted as technical expert for projects developed using RPG language on AS400 computer.
- Taught SQL language in a 1 day course organized by IBM in Romania.

**Programmer Analyst, Transiciel**, Lyon, France                Summer 1998
- Developed part of the Advertising Module of a commercial application for large distribution companies (team of 4 people).

**Project Manager, Kepler**, Bucharest, Romania                Summer 1997
- In charge of the management of a 4-month project with a team of 3 people.
- Assigned tasks and oversaw the members of the team.
- Discussed with the client and planned the project infrastructure.
- Ensured product compliance and timely delivery.
- Produced technical documentation for the project.
- Documented the team activity and produced periodical reports in conformity with ISO 9001 quality assurance norms.

**COMPUTER PROFICIENCY:**
**Operating Systems**: Windows (XP, 2000, NT), UNIX (Linux, Solaris, AIX), OS400
**Languages**: C++, C#, C, Java, RPG, Pacbase, Adelia, CL, BGL, Pascal, Lisp, Prolog, Matlab, ML, SQL
**Databases**: SQL Server, MS Access, DB2, AS400, TimesTen, Paradox

**HONORS/AWARDS**
Cornell University Fellowship 2000-2001
Premium for Academic Excellence Award from Iowa State University, 2000
Emeritus Romanian National Fellowship 1994-1997
Regional Mathematics Contest 'Grigore Moisil', Second Prize, 1993

**REFEERED PUBLICATIONS**

- **Querying Peer-to-Peer Networks Using P-Trees.** Adina Crainiceanu, Prakash Linga, Johannes Gehrke, and Jayavel Shanmugasundaram. In Proceedings of the Seventh International Workshop on the Web and Databases (WebDB 2004). Paris, France, June 2004
- **An Indexing Framework for P2P Systems.** Adina Crainiceanu, Prakash Linga, Ashwin Machanavajjhala, Johannes Gehrke, Jayavel Shanmugasundaram. In Proceedings of the 2004 ACM SIGMOD International Conference on Management of Data (SIGMOD 2004). Paris, France, June 2004. Demo.
- **P-Tree: A P2P Index for Resource Discovery Applications.** Adina Crainiceanu, Prakash Linga, Johannes Gehrke, and Jayavel Shanmugasundaram. In Proceedings of the Thirteenth International World Wide Web Conference (WWW 2004). New York, NY, May 2004. Poster paper.
- **A Storage and Indexing Framework for P2P Systems.** Adina Crainiceanu, Prakash Linga, Ashwin Machanavajjhala, Johannes Gehrke, and Jayavel Shanmugasundaram. In Proceedings of the Thirteenth International World Wide Web Conference (WWW 2004). New York, NY, May 2004. Poster paper.
- **Peer-to-Peer Sharing of Web Applications.** Roberto J. Bayardo, Adina Crainiceanu, Rakesh Agrawal. Proceedings of the Twelfth World Wide Web Conference (WWW 2003). Budapest, Hungary, May 2003. Poster paper

**TECHNICAL REPORTS:**

- **P-Ring: An Index Structure for Peer-to-Peer Systems.** Adina Crainiceanu, Prakash Linga, Ashwin Machanavajjhala, Johannes Gehrke, Jayavel Shanmugasundaram. Cornell University Computing and Information Science Technical Report TR2004-1946, July 2004
- **Querying Peer-To-Peer Networks Using P-Trees.** Adina Crainiceanu, Prakash Linga, Johannes Gehrke, Jayavel Shanmugasundaram. Cornell University Computing and Information Science Technical Report TR2004-1926, 2004.
- **Peer-to-Peer Sharing of Web Applications.** Roberto J. Bayardo, Adina Costea, Rakesh Agrawal. IBM Research Report RJ 10268, Nov. 2002.