

# Lyublena Antova

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## Contact Information

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**Currently:** PhD student in Computer Science at Cornell University (F1 visa)  
**Expected graduation date:** 12/2009  
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## Research Interests

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I am a last-year PhD student in the [Database group](#) at Cornell. My interests include different areas of data management, such as uncertain and probabilistic databases, query processing and optimization, and web data management.

## Education

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08/2007 – [expected: 12/2009] PhD student in Computer Science at Cornell University  
09/2006 – 12/2006 Visiting scientist at Cornell University  
04/2006 – 08/2007 PhD student in Computer Science at Saarland University, Saarbruecken, Germany  
10/2004 – 03/2006 M.Sc. in Computer Science at Saarland University, Saarbruecken, Germany. M.Sc. degree with distinction  
10/2003 – 07/2004 Exchange student at the Catholic University Eichstaett, Germany  
10/1999 – 07/2003 B.Sc. in Computer Science at Sofia University, Sofia, Bulgaria

## Work and Teaching Experience

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Summers of 2008,2009 Intern at Google in the structured data group of Alon Halevy  
Spring 2009 Teaching Assistant for “Data-Driven Businesses” at the Johnson Graduate School of Management, Cornell University  
SS 2006, SS 2007 Teaching Assistant for “Information Systems”, Saarland University  
WS 2006/2007 Teaching Assistant for the seminar “Managing Incomplete Information”, Saarland University

2001 - 2003

Teaching Assistant for "Introduction to Programming",  
"Object-oriented Programming" and "Data Structures in  
Programming", Sofia University

## **Projects**

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- **MayBMS**: open source DBMS for Uncertain and Probabilistic Data, project website: <http://www.cs.cornell.edu/bigreddata/maybms/>. The code is built inside of the Postgres database management system and uses C, SQL, and pl/SQL.
- **XQ**: efficient evaluation of XQuery programs using relational database techniques. This project was part of the class work for the Database Management Systems course attended at Saarland University, Germany. Project done in C++.
- During my two internships at Google I have worked in the **Deepweb** project for automatically crawling and indexing pages behind web forms, and in the **Webtables** project, for indexing and searching tables extracted from the web. The projects included code in both C++ and Java, and employed technologies such as MapReduce and BigTable.

## **Publications**

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- **10<sup>10</sup> Worlds and Beyond: Efficient Representation and Processing of Incomplete Information**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Accepted for publication in the Special Issue of the VLDB Journal on Probabilistic Databases. Extended version of the ICDE 2007 paper.
- **MayBMS: A Probabilistic Database Management System.**  
Jiewen Huang, Lyublena Antova, Christoph Koch, Dan Olteanu.  
Proc. SIGMOD 2009. (Demo paper).
- **Harnessing the Deep Web: Present and Future.**  
Jayant Madhavan, Loredana Afanasiev, Lyublena Antova, Alon Y. Halevy  
CIDR Perspectives 2009.
- **On APIs for Probabilistic Databases.**  
Lyublena Antova, Christoph Koch  
Proc. MUD 2008 (workshop on Management of Uncertain Data, colocated with VLDB).
- **World-set Decompositions: Expressiveness and Efficient Algorithms.**  
Dan Olteanu, Christoph Koch, Lyublena Antova  
Theoretical Computer Science (TCS) 2008.
- **Fast and Simple Relational Processing of Uncertain Data**  
Lyublena Antova, Thomas Jansen, Christoph Koch, Dan Olteanu  
Proc. ICDE 2008 (ranked 2<sup>nd</sup> in the research track).
- **Query Language Support for Incomplete Information in the MayBMS System**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Proc. VLDB 2007 (Demo paper).

- **From Complete to Incomplete Information and Back**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Proc. SIGMOD 2007.
- **World-set Decompositions: Expressiveness and Efficient Algorithms**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Proc. ICDT 2007.
- **MayBMS: Managing Incomplete Information with Probabilistic World-Set Decompositions**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Proc. ICDE 2007 (Demo paper).
- **10<sup>10</sup> Worlds and Beyond: Efficient Representation and Processing of Incomplete Information**  
Lyublena Antova, Christoph Koch, Dan Olteanu  
Proc. ICDE 2007.

## **Awards and Honors**

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<u>04/2008</u>	Best poster award at the Spring'08 North-East DB/IR Day, Columbia University
<u>12/2007</u>	Finalist for the IBM Ph.D. Fellowship
<u>04/2006-08/2007</u>	Scholarship for PhD studies from the International Max Planck Research School for Computer Science, Germany
<u>10/2004-03/2007</u>	Scholarship for Master's studies from the International Max Planck Research School for Computer Science, Germany
<u>10/2003-07/2004</u>	Erasmus scholarship for exchange studies from the European Community
<u>10/2003-07/2004</u>	Scholarship for high academic achievements from the Bulgarian government

## **Service**

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- PC ACM SIGKDD Workshop on Knowledge Discovery from Uncertain Data ([U'09](#))
- PC Foundations of Information and Knowledge Systems ([FolKS'10](#))

## **Language Skills**

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- Bulgarian: native
- English: fluent
- German: very good

## **References**

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On demand