

# Bojian Xu

Curriculum Vitae

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## Personal Data

School Address: 2215 Coover Hall, Department of Electrical & Computer Engineering  
Iowa State University, Ames, IA 50011, U.S.A.  
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Citizenship: P. R. China with F-1 visa

## Objective

A full-time position dedicated to computer science research and/or teaching.

## Research Interests

1. Algorithms for (distributed) massive data stream processing and their applications.
2. Approximate algorithms for data mining problems.
3. Distributed algorithms for wireless sensor networking.

## Education

1. **Ph.D. Candidate** in computer engineering, Spring 2005 - (Exp. May 2009)  
Iowa State University, Ames, Iowa GPA: 3.82  
Thesis advisor: Srikanta Tirthapura
2. **Master Program** in computer science, Fall 2004 (Transferred)  
University of Alabama, Tuscaloosa, Alabama GPA: 4.0
3. **B.E.** in computer science and engineering, Spring 2000  
Zhejiang University, Hangzhou, China GPA: 3.48(over all) 3.63(CS)

## Experience

1. **Research Assistant, Teaching Assistant**, Spring 2005 - now  
Department of Electrical & Computer Engineering, Iowa State University
2. **Research Intern**, Summer 2008  
Database Department, AT&T Shannon Laboratory, Florham Park, NJ  
Mentors: Graham Cormode and Divesh Srivastava
3. **Full-time Software Engineer**, July 2000 - July 2004  
Billing Center of China Mobile Communications Corporation, Zhejiang Province Branch Corporation,

## Honors

1. Preparing Future Faculty (PFF), Iowa State University, Fall 2008. Mentor: Prof. Chris C. N. Chu
2. Nominated by the Electrical and Computer Engineering Department at Iowa State University for the Microsoft Research Fellowship, 2007. (Three nominees total)
3. Student travel grant from ACM for the 26th Annual ACM Symposium on Principles of Distributed Computing (PODC), 2007
4. Professional Advancement Grant from Iowa State University, 2006, 2007

## Patents

Authors' names are in alphabetical order unless marked by '\*'.

1. Graham Cormode, Vladislav Shkapenyuk, Divesh Srivastava and **Bojian Xu**, "Techniques for implementing forward time decay in data management systems", Filed on June 2008
2. Graham Cormode, Srikanta Tirthapura and **Bojian Xu**, "Method and Apparatus for duplicate resilient time-decaying data stream summarization", Filed on June 2007

## Publications

Authors' names in alphabetical order, unless marked by '\*'.

### Publications in Refereed Conference Proceedings

1. Graham Cormode, Srikanta Tirthapura and **Bojian Xu**, "Time-decayed Correlated Aggregates over Data Streams", *Submitted to* the 9th SIAM International Conference on Data Mining (**SDM**), **2009**, 12 pages
2. Graham Cormode, Vladislav Shkapenyuk, Divesh Srivastava and **Bojian Xu**, "Forward Decay: A Practical Time Decay Model for Streaming Systems", To appear In Proceedings of the 25th IEEE International Conference on Data Engineering (**ICDE**) **2009**, 12 pages
3. Graham Cormode, Srikanta Tirthapura and **Bojian Xu**, "Time-Decaying Sketches for Sensor Data Aggregation", In Proceedings of the 26th Annual ACM Symposium on Principles of Distributed Computing (**PODC**) **2007**, pp.215-224
4. \*Srikanta Tirthapura, \***Bojian Xu** and Costas Busch, "Sketching Asynchronous Streams Over Sliding Windows", In Proceedings of the 25th Annual ACM Symposium on Principles of Distributed Computing (**PODC**) **2006**, pp.82-91

### Journal Publications

1. Graham Cormode, Srikanta Tirthapura and **Bojian Xu**, "Time-Decaying Sketches for Robust Aggregation of Sensor Data", *submitted to* SIAM Journal on Computing, 42 pages
2. \***Bojian Xu**, \*Srikanta Tirthapura and Costas Busch, "Sketching Asynchronous Streams Over Sliding Windows", Distributed Computing 20(5), pp.359-374, February 2008

## Talks

1. “Forward Decay: A Practical Time Decay Model for Streaming Systems”, AT&T Shannon Laboratory, Florham Park, NJ, July 2008
2. “Time-Decaying Sketches for Sensor Data Aggregation”, The 26th Annual ACM Symposium on Principles of Distributed Computing (PODC), Portland, Oregon, 2007
3. “Sketching Asynchronous Streams Over Sliding Windows”, The 25th Annual ACM Symposium on Principles of Distributed Computing (PODC), Denver, Colorado, 2006
4. “Lightweight Secure Distributed Directory for Sensor Networks”, Center for Information Protection (CIP), Iowa State University, 2006

## Professional Activities and Affiliations

1. Paper Reviewer for:
  - The 10th International Conference on Distributed Computing and Networking (ICDCN), 2009
  - The 33rd IEEE Conference on Local Computer Networks (LCN), 2008
  - The 4th IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2008
  - The 27th ACM Symposium on Principles of Database Systems (PODS), 2008
  - The 6th ACS/IEEE Int’l Conference on Computer Systems and Applications (AICCSA), 2008
  - The 8th Int’l Conference on Distributed Computing and Networking (ICDCN), 2007
  - The 9th Int’l Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), 2007
2. Volunteer in the Registration Process for the 26th Annual ACM Symposium on Principles of Distributed Computing (PODC), 2007
3. Student Member of ACM

## References

Available upon request.