

Curriculum Vitae

Hao Yuan
Department of Computer Science
Purdue University
West Lafayette, IN 47907, USA
Email: yuan3@cs.purdue.edu · Phone: 1 (765) 714-1318

November 10, 2009

Research Interests

Algorithms and Data Structures, Databases, Information Security, Information Retrieval, Bioinformatics, Programming Languages.

Education

- 2006 - Current Ph.D. Candidate, Computer Science, Purdue University
 Advisor: Mikhail J. Atallah
 Expected graduation date: May 2010
- 2006 - 2009 M.S. in Computer Science, Purdue University
- 2002 - 2006 B.E. in Computer Science, Shanghai Jiao Tong University, Shanghai, China

Honors & Awards

- Travel Grant, The 28th International Conference on Distributed Computing Systems (ICDCS 2008)
- Ross Fellowship, Purdue University, 2006
- Best Student Paper Award,
 The 16th Annual International Symposium on Algorithms and Computation (ISAAC 2005)
- Best Bachelor's Thesis Award, 2006,
 Department of Computer Science and Engineering, Shanghai Jiao Tong University
- 6th Place, The 27th ACM International Collegiate Programming Contest - World Finals, 2003
- Champion, The 27th ACM International Collegiate Programming Contest - Beijing Regional, 2002
- Silver Medal, The 18th National Olympiad in Informatics (NOI 2001, China)

Journal Publications

- Luo Si, Jamie Callan, Suleyman Cetintas and **Hao Yuan**,
“An effective and efficient results merging strategy for multilingual information retrieval in federated search environments”,
Information Retrieval, Volume 11, Number 1 / February, 2008.
- Erdong Chen, Linji Yang and **Hao Yuan**,
“Longest Increasing Subsequences in Windows based on Canonical Antichain Partition”,
Theoretical Computer Science, Volume 378, Issue 3, 9 June 2007, Pages 223-236.
- Erdong Chen, Linji Yang and **Hao Yuan**,
“Improved Algorithms for Largest Cardinality 2-Interval Pattern Problem”,
Journal of Combinatorial Optimization, Special Issue on Bioinformatics, Volume 13, Number 3 / April, 2007.

Refereed Conference Publications

- **Hao Yuan** and Mikhail J. Atallah,
“Data Structures for Range Minimum Queries in Multidimensional Arrays”,
to appear in *The 21th Annual ACM-SIAM Symposium on Discrete Algorithms* (SODA 2010).
- **Hao Yuan** and Mikhail J. Atallah,
“Efficient and Secure Distribution of Massive Geo-Spatial Data”,
in Proceedings of *The 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems* (GIS 2009), short paper.
- Suleyman Cetintas, Luo Si and **Hao Yuan**,
“Learning from Past Queries for Resource Selection”,
to appear in *The 18th ACM Conference on Information and Knowledge Management* (CIKM 2009), short paper.
- **Hao Yuan** and Patrick Eugster,
“An Efficient Algorithm for Solving the Dyck-CFL Reachability Problem on Trees”,
in Proceedings of *The 18th European Symposium on Programming* (ESOP 2009).
- **Hao Yuan** and Mikhail J. Atallah,
“Efficient Data Structures for Range-Aggregate Queries on Trees”,
in Proceedings of *The 12th International Conference on Database Theory* (ICDT 2009).
- **Hao Yuan** and Mikhail J. Atallah,
“Efficient Distributed Third-Party Data Authentication for Tree Hierarchies”,
in Proceedings of *The 28th International Conference on Distributed Computing Systems* (ICDCS 2008).
- **Hao Yuan**, Linji Yang and Erdong Chen,
“Improved Algorithms for Largest Cardinality 2-Interval Pattern Problem”,
In Proceedings of *The 16th Annual International Symposium on Algorithms and Computation* (ISAAC 2005). Nominated for Best Student Paper.
- Erdong Chen, **Hao Yuan** and Linji Yang,
“Longest Increasing Subsequences in Windows based on Canonical Antichain Partition”,
In Proceedings of *The 16th Annual International Symposium on Algorithms and Computation* (ISAAC 2005). **Best Student Paper**.

Teaching and Mentoring Experience

- Teaching Assistants at Purdue University:
 - CS 381 Introduction to Analysis of Algorithms, Fall 2008, Fall 2009
 - CS 514 Numerical Analysis, Spring 2009
 - CS 590I Information Retrieval, Fall 2006, Spring 2009
 - CS 483 Introduction to the Theory of Computation, Spring 2008
- Instructor at Shanghai Jiao Tong University:
 - 2005 Sep - 2006 Jan, "Introduction to Programming" (for Freshmen)
 - 2005 Feb - 2005 July, "Algorithm Design & Analyze II" (for Sophomores)
- Assistant Coach, World Champion Team of
The 29th Annual ACM International Collegiate Programming Contest - World Finals, 2005
- Invited Lecturer at Shanghai Youth Centre of Science & Technology Education, Shanghai, China,
Lectures on algorithms and data structures to gifted high school students, Summer 2003, Summer 2004

Professional Experience

- Summer Intern, Algorithmic Trading Research, Ortus Capital Management Limited, Hong Kong, 2007
- Summer Intern, Wireless & Networking Group, Microsoft Research Asia, Beijing, 2005
- Organizer, Discrete Mathematics and Theoretical Computer Science Reading Group, SJTU, 2005
- Judge, The 29th Annual ACM International Collegiate Programming Contest - Shanghai Regional, 2004
- Judge, Shanghai Team Selection Contest for National Olympiad Informatics (China), 2003-2005
- Administrator, Olympiad Informatics Beginners' Home (<http://www.oibh.org/>, in Chinese),
An online computer science education community for middle and high school students, 2002-2003

Professional References

- Mikhail J. Atallah
Associate Head and Distinguished Professor of Computer Science, Purdue University
Phone: +1 (765) 494-6017
Email: mja@cs.purdue.edu (please cc assistant Paula Perkins (pmp@cs.purdue.edu))
- Patrick Eugster
Assistant Professor of Computer Science, Purdue University
Phone: +1 (765) 494-6015
Email: p@cs.purdue.edu
- Greg N. Frederickson
Professor of Computer Science, Purdue University
Phone: +1 (765) 494-6016
Email: gnf@cs.purdue.edu

- Susanne E. Hambruch
Professor of Computer Science, Purdue University
Phone: +1 (765) 494-1831
Email: seh@cs.purdue.edu
- Luo Si
Assistant Professor of Computer Science, Purdue University
Phone: +1 (765) 494-9381
Email: lsi@cs.purdue.edu