

Aditya Parameswaran

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- Education*
- ◇ **Stanford University**, Stanford, CA, USA.
Ph.D. in Computer Science,
Advisor: Hector Garcia-Molina,
Title: Crowdsourcing Optimization,
Sep. 2007—Ongoing.
 - ◇ **IIT Bombay**, Mumbai, India.
B.Tech in Computer Science,
Advisor: Supratik Chakraborty,
Aug. 2003—Aug. 2007.

Broad Interests Information Management, Information Extraction, Internet Algorithms

- Top Academic honors*
- ◇ **Winner, Yahoo! Key Scientific Challenges Award, 2010.**
 - ◇ Selected for **best papers of VLDB 2010**, Int'l Conf. on Very Large Data Bases, VLDB 2010.
 - ◇ **Terry Grosz School of Engineering Fellowship 2007**, Stanford
 - ◇ Graduated at the **top of my class** of 60 Computer Science students at IIT Bombay, 2007.
 - ◇ **IIT Bombay Silver Medal and Jayati Deshmukh Gold Medal, 2007.**
 - ◇ **Aditya Birla Scholarship**, covering the entire undergraduate expenses at IIT Bombay, 2003.

- Research Themes*
- ◇ **Optimized Human Computation [OC]**: Optimizing crowdsourcing for cost, latency and accuracy.
 - ◇ **Simplified Information Extraction [IE]**: Reducing human involvement in web information extraction.
 - ◇ **Enhanced Recommendation Systems [RS]**: Using contextual information in recommender systems.
 - ◇ **Miscellaneous [MS]**

- Industry Research*
- ◇ **Google Research**, Mountain View, CA. 2011. Working with Anish Das Sarma and Alon Halevy on optimizing crowdsourcing.
 - ◇ **Yahoo! Research Santa Clara**, CA. Summer 2011. Worked with Nilesh Dalvi and Vibhor Rastogi on debugging information extraction and with Vibhor Rastogi and Kedar Bellare on record matching.
 - ◇ **Microsoft Research Redmond**, WA. Summer 2010. Worked with Raghav Kaushik and Arvind Arasu on data cleaning.
 - ◇ **Yahoo! Research Bangalore**, India. Winter 2009. Worked with Nilesh Dalvi and Rajeev Rastogi on developing fault tolerant wrappers for web information extraction.
 - ◇ **Kosmix**, Mountain View, CA. Summer 2008. Worked with Anand Rajaraman on extracting concepts from large data sets.
 - ◇ **INRIA**, Sophia-Antipolis, France, Summer 2006. Worked with Frederic Cazals and Sylvain Pion on geometric algorithms.
 - ◇ **Microsoft Research Bangalore**, India. Winter 2005. Worked with Prasad Naldurg and Sriram Rajamani on access control analysis using datalog.

Publications ◊ **Conferences**

- [OC] Stephen Guo, Aditya Parameswaran and Hector Garcia-Molina. So Who Won? Dynamic Max Discovery with the Crowd, *SIGMOD '12: ACM SIGMOD Int'l Conf. on the Management of Data*, Scottsdale, USA, 2012.
- [OC] Aditya Parameswaran, Hector Garcia-Molina, Hyunjung Park, Neoklis Polyzotis, Aditya Ramesh and Jennifer Widom. CrowdScreen: Algorithms for Filtering Data with Humans *SIGMOD '12: ACM SIGMOD Int'l Conf. on the Management of Data*, Scottsdale, USA, 2012.
- [MS] Foto Afrati, Anish Das Sarma, David Menestrina, Aditya Parameswaran and Jeffrey D. Ullman. Fuzzy joins using MapReduce, *ICDE '12: 28th Int'l Conf. on Data Engineering*, Washington DC, USA, 2011.
- [OC] Stephen Guo, Aditya Parameswaran and Hector Garcia-Molina. So Who Won? Dynamic Max Discovery with the Crowd (Poster), *CrowdConf '11: 2nd Crowdsourcing Conference*, San Francisco, USA, 2011.
- [IE] Aditya Parameswaran, Nilesh Dalvi, Hector Garcia-Molina and Rajeev Rastogi. Optimal Schemes for Robust Web Extraction, *VLDB '11: 37th Int'l Conf. on Very Large Data Bases*, Seattle, USA, 2011.
- [OC, IE] Aditya Parameswaran, Anish Das Sarma, Hector Garcia-Molina, Neoklis Polyzotis and Jennifer Widom. Human-assisted Graph Search: It's Okay to Ask Questions, *VLDB '11: 37th Int'l Conf. on Very Large Data Bases*, Seattle, USA, 2011.
- [OC] Aditya Parameswaran and Neoklis Polyzotis. Answering Queries using Databases, Humans and Algorithms, *CIDR '11: Conf. on Innovative Data Management (CIDR)*, Asilomar, USA, 2011.
- [RS] Aditya Parameswaran, Hector Garcia-Molina and Jeffrey D. Ullman. Evaluating, Combining and Generalizing Recommendations with Prerequisites, *CIKM '10: 19th Int'l Conf. on Information and Knowledge Management*, Toronto, Canada, 2010.
- [IE] Aditya Parameswaran, Hector Garcia-Molina and Anand Rajaraman. Towards the Web of Concepts: Extracting Concepts from Large Datasets, *VLDB '10: 36th Int'l Conf. on Very Large Data Bases*, Singapore, 2010. Invited to **Special Issue of VLDB Journal for VLDB 2010 Best Papers**.
- [RS] Aditya Parameswaran, Georgia Koutrika, Benjamin Berkovitz and Hector Garcia-Molina. Rec-splorer: Recommendation Algorithms Based on Precedence Mining, *SIGMOD '10: ACM SIGMOD Int'l Conf. on the Management of Data*, Indianapolis, USA, 2010.
- [IE] Anish Das Sarma, Aditya Parameswaran, Hector Garcia-Molina and Jennifer Widom. Synthesizing View Definitions from Data, *ICDT '10: 13th Int'l Conf. on Database Theory*, Lausanne, Switzerland, 2010.
- [RS] Aditya Parameswaran and Hector Garcia-Molina. Recommendations with Prerequisites (Short Paper) *RecSys '09: 3rd ACM Conf. on Recommender Systems*, New York, USA, 2009.
- [MS] Eldar Sadikov, Aditya Parameswaran and Petros Venetis. Blogs as Predictors of Movie Success, *ICWSM '09: AAAI Conf. on Weblogs and Social Media*, San Jose, USA, 2009.
- [MS] Frederic Cazals, Aditya Parameswaran and Sylvain Pion. Robust Construction of the Three-dimensional Flow Complex, *SOCG '08: ACM Symposium on Computational Geometry*, Maryland, USA, 2008.

◊ **Journals**

- [RS] Georgia Koutrika, Hector Garcia-Molina and Aditya Parameswaran. Information Seeking: Convergence of Search, Recommendations and Advertising, *Communications of the ACM (CACM)*, Nov 2011.
- [RS] Aditya Parameswaran, Petros Venetis and Hector Garcia-Molina. Recommendation Systems with Complex Constraints: A Course Recommendation Perspective, *Transactions on Information Systems (TOIS)*, Volume 29(4), Nov 2011.

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- [RS] Benjamin Berkovitz, Filip Kaliszan, Georgia Koutrika, Henry Liou, Aditya Parameswaran, Petros Venetis, Zahra Mohammadi Zadeh and Hector Garcia-Molina. Social Sites Research Through CourseRank, *SIGMOD Record*, Volume 38, Dec 2009.
- [MS] Yashodhan Kanoria and Aditya Parameswaran. A Vector approach to Ray Tracing for Reflection and Refraction, *Physics Education*, Jan-Mar 2006 issue, Vol 22, No.4.

◊ **Preprints**

- [OC] Hyunjung Park, Richard Pang, Aditya Parameswaran, Hector Garcia-Molina, Neoklis Polyzotis and Jennifer Widom. Deco: A System for Declarative Crowdsourcing (Demo), Infolab Technical Report, Mar 2012.
- [OC,IE] Kedar Bellare, Aditya Parameswaran and Vibhor Rastogi. Active Sampling for Entity Matching, Infolab Technical Report, Feb 2012.
- [IE] Aditya Parameswaran, Raghav Kaushik and Arvind Arasu. Efficient Parsing-based Keyword Search over Databases, Infolab Technical Report, Feb 2012.
- [OC] Aditya Parameswaran, Hyunjung Park, Hector Garcia-Molina, Neoklis Polyzotis and Jennifer Widom. Deco: Declarative Crowdsourcing, Infolab Technical Report, Feb 2012.
- [OC, IE] Nilesh Dalvi, Aditya Parameswaran and Vibhor Rastogi. Human Powered Debugging of Large Data Pipelines, Infolab Technical Report, Dec 2011.

Teaching

- ◊ **Teaching CS145:** Introduction to Databases, Summer 2012 (Scheduled), Stanford University.
- ◊ **Course associate for CS347:** Parallel and Distributed Databases with Prof. Hector Garcia-Molina, Spring 2011, Stanford University.
- ◊ **Course associate for CS246:** Mining Massive Datasets with Prof. Jure Leskovec, Winter 2010-11, Stanford University.

Mentorship

- ◊ Stephen Guo (Second year PhD), Crowdsourced Max Algorithms, 2011.
- ◊ Aditya Ramesh (MS), Crowdsourced Filtering Algorithms, 2011.
- ◊ Izaak Rubin (MS), Crowdsourced Categorization, 2011.
- ◊ Benjamin Berkovitz (MS), Course Recommendations, 2009.

Community activities

- ◊ **Talks**
 - MIT EECS Colloquium: Apr 2012
 - Univ. of Washington Colloquium: Feb 2012
 - Faculty Lunch, Stanford University: Dec 2011
 - International Conf. on Very Large Data Bases (VLDB), Seattle, USA: Sep 2011 (Two talks)
 - IBM Research Invited Talk, Almaden, USA: Mar 2011
 - Crowd-Crowd Workshop, UC Berkeley: Jun 2011
 - Conference on Innovative Database Research (CIDR), Asilomar, USA: Jan 2011
 - Conference on Information and Knowledge Management (CIKM), Toronto, Canada: Oct 2010
 - International Conf. on Very Large Data Bases (VLDB), Singapore: Sep 2010
 - Microsoft Research DMX Group, Redmond, USA: Aug 2010
 - SIGMOD International Conf. on Management of Data, Indianapolis, USA: Jun 2010

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- International Conf. on Database Theory (ICDT), Lausanne, Switzerland: Mar 2010
- Yahoo! Research Invited Talk, Bangalore, India: Sep 2009
- UC Berkeley, Database Group Lunch Talk: Mar 2009
- Kosmix Corporation, Mountain View, USA: Aug 2008
- ◇ **Reviewer:** Transactions on Knowledge and Data Engineering (IEEE TKDE) 2010 and 2011, Journal of Web Semantics (JWS) 2011
- ◇ **External reviewer:** VLDB 2011, SIGMOD 2011, UIST 2011

Other Honors

- ◇ **Perfect GRE and TOEFL Scores, 2006.**
- ◇ IIT - Joint Entrance Examination — All India Rank of **34** out of nearly 150,000 students, 2003.
- ◇ National Science Olympiad — Ranked **4th in India** in this science examination, 2003.
- ◇ Institute Technical Citation — Awarded the prestigious **Tech Citation** for excellence in technological extra-curricular activities at IIT — given to three students each year, 2006 and 2007.
- ◇ Indian National Physics Olympiad — Amongst the **top 25** gold medalists in the nation, 2003.
- ◇ Technical Consultant for an Indian Film: Worked with the Scriptwriter and Director to **write dialogues for an Indian Film** ('Teen Patti' — released in Feb. 2010) with a budget of the order of tens of Millions of U.S. Dollars, 2007.
- ◇ Member of the Institute Student Mentor body of IIT Bombay: Mentored a group of 16 freshmen, 2006.
- ◇ **Winner of several tech competitions** at IIT Bombay, including Science Journalism (twice), Tech Decathlon, Original Idea Presentation Contest, Yantriki (Robotics Competition), 2003-2007.
- ◇ Passed levels one, two, and three of the **Speech and Drama** examination conducted by Trinity College, London.

Programming Skills

- ◇ Languages: Python, C/C++, C#/Java, Scheme, SQL, Haskell, Prolog
- ◇ Scripting / Formatting: \LaTeX , HTML, PHP, Awk, Sed, Bash
- ◇ Operating Systems: Linux (Ubuntu/Fedora), Windows 98/XP/Vista/7

References

Hector Garcia-Molina

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