

Semih Salihoglu

CONTACT INFORMATION	2620 Ellendale Pl. Apt 109 Los Angeles, CA 90007	semih.salihoglu@uwaterloo.ca
RESEARCH INTERESTS	Databases, Distributed Systems, Massive-scale Data Processing	
	My research focuses on new theories, algorithms, and systems for performing large-scale joins of record-oriented data and processing extremely large graphs.	
EDUCATION	Stanford University , Stanford, CA Ph.D., Computer Science 2009-2015 <ul style="list-style-type: none">• Advisor: Jennifer Widom• Thesis Title: Massive-scale Processing of Record-Oriented and Graph Data Yale University , New Haven, CT B.S., Computer Science and Economics, 2002-2006 <ul style="list-style-type: none">• Summa cum laude, Phi Beta Kappa	
WORK EXPERIENCE	University of Waterloo. Assistant Professor, Waterloo, ON 2016-present Google, Inc. Software Engineer, New York, NY 2006-2009 <ul style="list-style-type: none">• Sports Backend: Developed a sports data source for several Google applications including search, Google Alerts, and Android.• Google Notebook: Worked on a browser tool to help users do online research by taking notes on bookmarked web pages.	
AWARDS AND HONORS	<ul style="list-style-type: none">• VMWare Fellowship in Honor of Pratap Subrahmanyam, 2014-2015• Stanford Computer Science Department Google Graduate Fellowship, 2013-2014• Excellent Presentation Award, VLDB 2014• Best Paper Runner-up Award, SSDBM 2013• Yale Science and Engineering Senior Highest Scholarship Award, 2006• Yale Computer Science Department Undergraduate Award, 2006	
PROFESSIONAL ACTIVITIES	<ul style="list-style-type: none">• Tutorial on Designing Good Algorithms for MapReduce and Beyond, Afrati F. N., Balazinska M., Das Sarma A., Howe B., Salihoglu S., Ullman J., ACM Symposium on Cloud Computing (SOCC), October 2012• Program Committee Member for Workshop on Algorithms for MapReduce and Beyond, EDBT/ICDT 2014, 2015• Reviewer for IEEE TKDE 2013, CACM 2015• External reviewer for EDBT 2014, ICDE 2012	
TEACHING	<ul style="list-style-type: none">• Instructor for CS 161: Design and Analysis of Algorithms, Summer 2014, Stanford University• Teaching Assistant for CS 245: Database System Principles with Prof. Hector Garcia-Molina, Winter 2012, Stanford University• Teaching Assistant for CS 161: Design and Analysis of Algorithms with Prof. Tim Roughgarden, Winter 2010, Stanford University	

MENTORSHIP

Supervised Stanford MS Students: Firas Abuzaid, Vikesh Khanna, Ba Quan Truong

Supervised KAUST MS Student: Yasser Ebrahim

PUBLICATIONS

Conferences

1. Optimizing Graph Algorithms on Pregel-like Systems, Salihoglu, S., Widom, J., Proc. International Conference on Very Large Data Bases (VLDB), Hangzhou, China, September 2014
2. Anchor Points Algorithms for Hamming and Edit Distance Afrati F., Das Sarma, A., Rajaraman, A., Rule, P., Salihoglu, S., Ullman, J., Proc. International Conference on Database Theory (ICDT), Athens, Greece, March 2014
3. Simplifying Scalable Graph Processing with a Domain-Specific Language Hong., S., Salihoglu., S., Widom., J., Olukotun., K. Proc. International Symposium on Code Generation and Optimization (CGO), Orlando, Fl., February 2014
4. Upper and Lower Bounds on the Cost of a MapReduce Computation Afrati, F., Das Sarma, A., Salihoglu, S., Ullman J., Proc. International Conference on Very Large Data Bases (VLDB), Trento, Italy, August 2013
5. GPS: A Graph Processing System Salihoglu, S., Widom, J. Proc. International Conference on Scientific and Statistical Database Management (SSDBM), July 2013
6. Provenance-Based Refresh in Data-Oriented Workflows Ikeda, R. Salihoglu, S., Widom, J. Proc. Conference on Information and Knowledge Management (CIKM), Glasgow, Scotland, October 2011

Workshops

1. Help: High-level Primitives for Large-Scale Graph Processing, Salihoglu, S., Widom., J., Graph Data-management Experiences and Systems Workshop (GRADES), Snowbird, Utah, June 2014
2. Towards an Understanding of the Limits of MapReduce Computation Afrati, F., Das Sarma, A., Salihoglu, S., Ullman J., Cloud Futures Workshop, Berkeley, CA, May 2012
3. Interdomain Routing As Social Choice Dakdouk, R., Salihoglu, S., Wang, H., Xie, Yang Y., Distributed Computing Systems Workshops (ICDCS) , Lisbon, Portugal, July 2006

Demonstrations

1. SPARTex: A Vertex-Centric Framework for RDF Data Analytics Abdelaziz, I. and Harbi, R. and Salihoglu, S. and Kalnis, P. and Mamoulis, Proc. International Conference on Very Large Data Bases (VLDB), September 2015
2. Graft: A Debugging Tool For Apache Graph Salihoglu, S. and Shin, J. and Khanna, V. and Truong, B. and Widom, J., Proc. ACM SIGMOD International Conference on Management of Data (SIGMOD), June 2015
3. Provenance-Based Debugging and Drill-Down in Data-Oriented Workflows Ikeda, R., Cho, J., Fang, C., Salihoglu, S., Torikai, S., Widom, J. Proc. International Conference on Data Engineering (ICDE), Washington, DC, April 2012

Technical Reports

1. GYM: A Multiround Join Algorithm In MapReduce Afrati, Foto and Joglekar, Manas and Re, Chris and Salihoglu, Semih and Ullman, Jeffrey D., Stanford University, October 2014