

## Biographical Sketch - Christopher Jermaine

Dr. Christopher Jermaine's research interests span the areas of data management and databases, data mining, and statistics. He is particularly interested in problems related to applying rigorous statistical analysis and algorithms to very large-scale data sets.

### Professional Preparation

Institution	Major	Degree
University of California, San Diego	Mathematics/Computer Science	B.A., 1993
The Ohio State University	Computer and Information Science	M.Sc., 1997
The University of Arizona	Computer Science	Ph.D. student (no degree)
Georgia Institute of Technology	Computer Science	Ph.D., 2002

### Appointments

Institution	Position	Dates
Rice University	Professor	Sum., 2016-present
Rice University	Associate Professor	Spring, 2009- Sum., 2016
University of Florida	Associate Professor	Fall, 2008
University of Florida	Assistant Professor	Fall, 2002 - Summer, 2008
Georgia Institute of Technology	Instructor	1999- Spring, 2002

### Selected Products

#### Related to Proposed Research

- [1] Jacob Gao, Shangyu Luo, Luis Leopoldo Perez, Chris Jermaine: The BUDS Language for Distributed Bayesian Machine Learning. To appear: SIGMOD Conference, 2017.
- [2] Floran Rusu, Zixuan Zhuang, Mingxi Wu, Chris Jermaine: Workload-Driven Antijoin Cardinality Estimation. ACM Trans. Database Syst. 40 (3): 1-41 (2015)
- [3] Cai Zhuhua, Luis Perez, Chris Jermaine, Foula Vagena, Jacob Gao, Shangyu Luo: An Experimental Comparison of Platforms for Implementing and Executing Large-Scale Machine Learning Algorithms. SIGMOD Conference, 2014:1371-1382
- [4] Cai Zhuhua, Foula Vagena, Subi Arumugam, Luis Perez, Chris Jermaine, Peter Haas: Simulation of Database-Valued Markov Chains with SimSQL. SIGMOD Conference 2013: 637-648
- [5] Ravi Jampani, Fei Xu, Mingxi Wu, Luis Leopoldo Perez, Chris Jermaine, Peter J. Haas: The monte carlo database system: Stochastic analysis close to the data. ACM Trans. Database Syst. 36(3): 18 (2011)

#### General Products

- [6] Shangyu Luo, Jacob Gao, Michael Gubanov, Luis Leopoldo Perez, Chris Jermaine: Scalable Linear Algebra on a Relational Database System. To appear: ICDE Conference, 2017.
- [7] Yanxin Lu, Joe Warren, Christopher Jermaine, Swarat Chaudhuri, Scott Rixner: Grading the Graders: Motivating Peer Graders in a MOOC. WWW Conference, 2015: 680-690
- [8] Luis Perez, Chris Jermaine: History-Driven Query Optimization with Materialized Intermediate Views. ICDE Conference, 2014: 520-531
- [9] upriya Nirkhiwale, Alin Dobra, Chris Jermaine: A Sampling Algebra for Aggregate Estimation. PVLDB 6(14): 1798-1809 (2013)
- [10] Niketan Pansare, Vinayak Borkar, Chris Jermaine, Tyson Condie: Online Aggregation Over Large MapReduce Jobs. PVLDB 2011: 659-670

## **Synergistic Activities**

- (1) Served as PC chair for ICDE 2013, one of the “big three” database conferences.
- (2) Served as a PC member for ACM SIGMOD, ACM KDD, VLDB, IEEE ICDE, SIAM Data Mining, etc.
- (3) Associate editor of the Very Large Database Journal, IEEE TKDE, and ACM TODS.
- (4) Serving as general chair of SIGMOD 2018. SIGMOD is the flagship conference sponsored by the ACM Special Interest Group for the Management of Data, the premier professional organization for data management researchers.
- (5) Close collaboration with health scientists to transfer mining technology to applications in medical informatics.

## **Recent Collaborators and Other Affiliations**

Gagan Agrawal, Ohio State  
Elmer Bernstam, University of Texas Health Sciences  
Vinayak Borkar, University of California, Irvine  
Tyson Condie, UCLA/Microsoft  
Alin Dobra, University of Florida  
Minos Garofalakis, Technical University of Crete  
Peter J. Haas, IBM Almaden Research Center  
Jorge Herskovic, MD Anderson Cancer Center  
John Frenzel, MD Anderson Cancer Center  
Supriya Nirkhiwale, University of Florida  
Tamer Kahveci, University of Florida  
Nitendra Rajput, IBM Research India  
Sanjay Ranka, University of Florida  
Joseph Ruiz, MD Anderson Cancer Center  
Florin Rusu, University of California, Merced  
Wai Gen Yee, Illinois Institute of Technology  
Mingxi Wu, Turn, Inc.

## **Advisors:**

Edward Omiecinski, Georgia Institute of Technology (Ph.D. thesis advisor)  
Richard Snodgrass, University of Arizona (Ph.D. advisor while a student at U. of Arizona)  
Renee J. Miller, University of Toronto (M.Sc. advisor at the Ohio State University)

## **Thesis advisor and postgraduate-scholar sponsor (2 postocs:19 graduate students)**

Postdocs: Manas Somaiya, EBay; Zografoula Vegena, LogicBlox; Kia Teymourian (current); Michael Gubanov (UT San Antonio)

PhD students: Subramanian Arumugam, Greenplum; Arkabandhu Chowdhury, Rice (current); Anna Drummond, Ruths Analytics and Innovation; Jacob Gao, Rice (current); Ravi Jampani, Vertica; Shantanu Joshi, Oracle; Shangyu Luo, Rice (Current); Risa Myers, Rice (current); Rohan Mukherjee, Rice (current); Niketan Pansare, IBM Almaden; Letao Qi, Rice (current); Luis Leopoldo Perez, Rice (current); Abhijit Pol, Yahoo!; Manas Somaiya, EBay; Xiuyao Song, Yahoo!; Fei Xu, Microsoft; Jayendra Venkateswaran, University of Florida; Mingxi Wu, Oracle; Cai Zhuhua, Google.