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Professor Margo Seltzer

Correspondence language: English

Contact Information

The primary information is denoted by (*)

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Professor Margo Seltzer

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes

Degrees

- 1992/12 Doctorate, Computer Science, University of California, Berkeley
Supervisors: Michael Stonebraker, 1988/1 - 1992/12
- 1983/6 Bachelor's, Applied Mathematics, Harvard University

Recognitions

- 2019/7 USENIX Lifetime Achievement Award
USENIX
Prize / Award
Margo Seltzer received the 2019 award in recognition of her research into experimental file and storage systems, her development of new storage paradigms such as provenance, her software contributions, and her dedication to and steering of the USENIX community and its organization.
- 2019/2 Elected to the (US) National Academy of Engineering
(US) National Academy of Engineering
Prize / Award
Elected to the (US) National Academy of Engineering
- 2017/2 CRA-E Undergraduate Research Mentoring Award
Computing Research Association
Prize / Award
The CRA-E Undergraduate Research Faculty Mentoring Award recognizes individual faculty members who have provided exceptional mentorship, undergraduate research experiences and, in parallel, guidance on admission and matriculation of these students to research-focused graduate programs in computing.

User Profile

Research Specialization Keywords: Computer systems, Data provenance, Operating systems, Database systems, Transaction processing

Employment

2018/9	Canada 150 Research Chair in Computer Systems and Cheriton Family Chair in Computer Science Computer Science, University of British Columbia Full-time, Professor Tenure Status: Tenure
2017/7 - 2018/12	Instructor Online Business Analytics Program, Harvard Business School Part-time, Term, Professor Tenure Status: Tenure Developed and delivered online course materials and weekly online classes.
2017/7 - 2018/8	Visiting Professor Computer Science, Harvard Business School Full-time Tenure Status: Tenure
2006/3 - 2018/8	Architect Oracle Labs, Oracle Corporation
2000/7 - 2018/8	Herchel Smith Professor of Computer Science School of Engineering and Applied Sciences, Computer Science, Harvard University Full-time, Professor Tenure Status: Tenure
2005/9 - 2010/9	Harvard College Professor Computer Science, Harvard University Full-time Tenure Status: Tenure
2002/9 - 2006/2	Associate Dean Computer Science and Engineering, Harvard University Full-time Tenure Status: Tenure Responsible for overall administration of Computer Science and Electrical Engineering including curricular planning, Jr. faculty recruiting and mentoring, departmental communication, and Industrial outreach
1996/6 - 2006/2	Chief Technical Officer Sleepycat Software
2000/7 - 2004/9	Gordon McKay Professor Computer Science, Harvard University Full-time Tenure Status: Tenure
1997/7 - 2000/6	Associate Professor Division of Engineering and Applied Sciences, Computer Science, Harvard University Full-time, Associate Professor Tenure Status: Tenure Track
1993/1 - 1997/6	Assistant Professor Division of Engineering and Applied Sciences, Computer Science, Harvard University Full-time, Assistant Professor Tenure Status: Tenure Track

Research Funding History

Awarded [n=6]

- 2018/9 - 2025/8
Principal Investigator
- Canada 150 Research Chair in Computer System, Grant
- Funding Sources:**
Natural Sciences and Engineering Research Council of Canada (NSERC)
Canada 150 Research Chairs
Total Funding - 7,000,000
Portion of Funding Received - 1,750,000
Funding Competitive?: Yes
- 2018/9 - 2020/8
Co-applicant
- Increasing Scientific Dataset Quality Through Reproducibility and Curation Tools and Targeted Services in Dataverse Repositories, Grant
- Funding Sources:**
Sloan Foundation
Total Funding - 499,697
Portion of Funding Received - 246,988
Funding Competitive?: Yes
- 2014/8 - 2020/7
Principal Investigator
- XPS: FULL: CCA: Collaborative Research: Automatically Scalable Computation, Grant
- Funding Sources:**
National Science Foundation (USA)
Exploiting Parallelism and Scalability (XPS)
Total Funding - 525,000
Portion of Funding Received - 525,000
Funding Competitive?: Yes
National Science Foundation (USA)
Exploiting Parallelism and Scalability (XPS)
Total Funding - 115,000
Portion of Funding Received - 115,000
Funding Competitive?: Yes
- Co-investigator : Ajay Joshi; David Brooks; Jonathan Appavoo; Ryan Adams; Steve Homer
- 2015/6 - 2020/5
Principal Investigator
- CISE-Provenance : SI2-SSI: Collaborative Research: Bringing End-to-End Provenance to Scientists, Grant
- Funding Sources:**
National Science Foundation (USA)
Software Infrastructure for Sustained Innovation
Total Funding - 1,422,728
Portion of Funding Received - 1,125,824
Funding Competitive?: Yes
- Co-investigator : Aaron Ellison; Barbara Lerner; Emery Boose
- 2015/11 - 2019/11
Principal Investigator
- PRINCESS : Probabilistic Representation of Intent Commitments to Ensure Software Survival (PRINCESS), Contract
- Funding Sources:**
Defense Advanced Research Project Agency (The)
BRASS
Total Funding - 1,380,154
Portion of Funding Received - 698,023
Funding Competitive?: Yes

- Principal Investigator : Stephen Chong
- 2018/1 - 2018/12
Co-investigator Towards a FAIR Digital Ecosystem in the Cloud, Grant
- Funding Sources:**
National Institutes of Health (NIH) (USA)
Total Funding - 647,221
Portion of Funding Received - 647,221
Funding Competitive?: Yes
- Principal Investigator : Merce Crosas
- Completed [n=4]**
- 2017/9 - 2018/8
Principal Investigator New Approaches for Ranking in Machine Learning, Grant
- Funding Sources:**
Duke University (USA)
Subcontract from IIS-1053407
Total Funding - 49,767
Portion of Funding Received - 49,767
Funding Competitive?: No
- Principal Investigator : Cynthia Rudin
- 2015/1 - 2017/12
Principal Investigator Citation++: Data citation, provenance, and documentation, Grant
- Funding Sources:**
National Science Foundation (USA)
Total Funding - 300,000
Portion of Funding Received - 288,963
Funding Competitive?: Yes
- Principal Investigator : Gary King; Merce Crosas
- 2013/10 - 2017/9
Principal Investigator CSR: Medium: Collaborative Research: Workload-Aware Storage Architectures for Optimal Performance and Energy Efficiency, Grant
- Funding Sources:**
National Science Foundation (USA)
Computer Systems Research
Total Funding - 306,077
Portion of Funding Received - 306,077
Funding Competitive?: Yes
- Principal Investigator : Erez Zadok; Geoff Keunung
- 2009/9 - 2013/9
Co-investigator Analyzing Complex Healthcare Data to Determine Causality of Observed Drug Effects, Grant
- Funding Sources:**
National Institutes of Health (NIH) (USA)
Total Funding - 213,491
Portion of Funding Received - 213,491
Funding Competitive?: Yes
- Co-investigator : Jeremy Rassen;
Principal Investigator : Sebastien Schneeweis

Student/Postdoctoral Supervision

Master's Thesis [n=2]

- 2018/9 - 2020/5
Academic Advisor
Zixuan Yin (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Blockchain as an engine for distributed consensus
Present Position: MSc Student
- 2018/5 - 2020/9
Co-Supervisor
Christopher Chen (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Fullstack program synthesis
Present Position: MSc Student

Doctorate [n=10]

- 2018/9 - 2020/5
Principal Supervisor
Tony Mason (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Relationships as first-class entities in file systems
Present Position: PhD Student
- 2018/5 - 2020/9
Co-Supervisor
Swati Goswami (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Split-merge packet processing
Present Position: PhD Student
- 2016/9 - 2020/5
Co-Supervisor
Crystal Hu (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Operating system synthesis
Present Position: PhD Student
- 2016/9 - 2020/5
Co-Supervisor
Michael Han (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Provenance-based security applications
Present Position: PhD Student
- 2015/9 - 2020/5
Co-Supervisor
David Holland (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Operating System Synthesis
Present Position: PhD Student
- 2014/9 - 2020/5
Principal Supervisor
Robert Bowden (In Progress) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: ML-based Program Repair
Present Position: PhD Student
- 2011/9 - 2014/8
Principal Supervisor
Elaine Angelino (Completed) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Accelerating Markov chain Monte Carlo via parallel predictive prefetching
Present Position: Independent
- 2008/9 - 2017/8
Principal Supervisor
Daniel Margo (Completed) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Sorting shapes the performance of graph-structured systems
Present Position: Member of the Technical Staff, Google
- 2008/9 - 2015/3
Principal Supervisor
Peter Macko (Completed) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: LLAMA: A Persistent, Mutable Representation for Graphs
Present Position: Member of the Technical Staff, Netapp
- 2004/9 - 2014/5
Principal Supervisor
Uri Braun (Completed) , Harvard School of Engineering and Applied Sciences
Thesis/Project Title: Limiting Disclosure in Annotated Graphs
Present Position: CEO, Sybil Security

Post-doctorate [n=2]

- 2016/9 - 2019/9 Ming Kawaguchi (In Progress) , Harvard School of Engineering and Applied Sciences
Co-Supervisor Thesis/Project Title: Domain specific languages for operating system code synthesis
Present Position: Post doctoral researcher
- 2016/9 - 2017/12 Thomas Pasquier (Completed) , Harvard School of Engineering and Applied Sciences
Principal Supervisor Thesis/Project Title: Whole system Provenance
Present Position: Lecturer, University of Bristol

Event Administration

- 2019/11 - 2020/4 Program Co-Chair, European Conference on Computer Systems (Eurosys 2020),
Conference, 2020/4 - 2020/4
- 2018/8 - 2019/8 Co-organizer, Cognitive Defense (CogD): Detecting and Defending Against Influence
Operations" - #1, Workshop, 2018/10 - 2018/10
- 2018/8 - 2019/8 Co-Organizer, Cognitive Defense (CogD): Detecting and Defending Against Influence
Operations" --Workshop #3, Workshop, 2019/7 - 2019/7
- 2018/8 - 2019/8 Co-Organizer, Cognitive Defense (CogD): Detecting and Defending Against Influence
Operations" - #2, Workshop, 2019/2 - 2019/2
- 2017/8 - 2018/8 Co-Organizer, TAMALE: Toolkit of Algorithms for Machine Learning, Workshop, 2018/4 -
2018/4
- 2017/8 - 2018/8 Co-Organizer, SATIATE: Symposium About Technology in Agriculturally Troubled
Environments, Workshop, 2018/3 - 2018/3

Editorial Activities

- 2018/3 - 2020/8 Computer Science Co-Editor, Harvard Data Science Review, Journal

Organizational Review Activities

- 2018/4 - 2018/6 Member of Visiting Committee, Harvard Business School
Participated in two-day review of the Harvard Business School and assisted in preparation
of report to the President.
- 2015/11 - 2015/11 Member, Ecole Polytechnique de federal Lausanne (EPFL)
Visiting committee of the School of Computer and Communication Sciences (IC School).

International Collaboration Activities

- 2018/9 - 2021/5 Advisor, United States
I continue to advise four Ph.D. students at Harvard University.
- 2018/1 - 2020/12 Researcher, United Kingdom
I collaborate with Robert Watson at Cambridge University and Thomas Pasquier at the
University of Bristol in the area of data provenance.
- 2016/1 - 2019/12 Researcher, United States
I conduct research on interpretable machine learning with Cynthia Rudin at Duke
University, students at Harvard University, and Elaine Angelino from Berkeley.

2017/10 - 2018/10 Organizer, Germany
 With colleagues from New Zealand (David Ayers) and the UK (Jatindra Singh and Christopher Millard), I co-organized a Dagstuhl Workshop on accountable systems.

Committee Memberships

2017/8 - 2020/8 Committee Member, US DARPA Information Science and Technology Study Group (ISAT), US Defense Advanced Research Project Agency (DARPA)
 This groups meets three times per year and holds workshops to identify important areas for federal research.

2012/9 - 2019/12 Co-chair, Boston University Academy Head of School Advisory Board, Boston University

2016/9 - 2019/9 Committee Member, US National Academies Computer Science and Telecommunications Board (CSTB), US Natoinal Academies
 This group provides technical expertise to the National Academies and Federal Agencies.

2019/5 - 2019/5 Committee Member, Program Committee for Hot Topics on Operating Systems, Hot Topics on Operating Systems (HotOS)

2017/11 - 2018/11 Committee Member, Selection committee for the CRA Outstanding Undergraduate Award, Computing Research Association
 This committee selects the winners of the CRA Outstanding Undergraduate Research Award competition.

2002/2 - 2018/2 Committee Member, FAST Steering Committee, USENIX Association
 FAST is the premier storage and file system conference; the steering committee selects chairs and ensures continuity year over year.

2012/1 - 2017/12 Committee Member, NSF PRObE Steering Committee, NSF PRObE

2014/7 - 2017/7 Committee Member, Board of Directors, Computing Research Associatoin
 I served as the USENIX Representative to the CRA board.

2011/6 - 2017/2 Committee Member, Sloan Research Fellow Computer Science Selection Committee, Sloan Foundation
 A committee of three selects the winners of the annual Sloan Research Fellowships. I chaired this committee my last year on the committee.

2009/9 - 2016/9 Committee Member, Steering Committee for the USENIX Workshop on Theory and Practice of Provenance, USENIX Association

2012/7 - 2014/7 Chair, USENIX Board of Directors, USENIX Association
 I served as Board President of the USENIX Association

2010/6 - 2013/6 Committee Member, Computing Community Consortium, Computing Research Association
 I served as a member at large on the CCC and as a member of the executive committee in 2012-2013.

Other Memberships

1994/9 - 2019/10 Member, Association for Computing Machinery (ACM)

1990/1 - 2019/1 Member, USENIX Association

Presentations

1. (2019). Distinguished Lecture. An NVM Carol. Carleton College, Minnesota, United States
Invited?: Yes, Keynote?: No
2. (2019). An NVM Carol: Visions of NVM Past, Present, and Future. Alumni/Industry Lecture, California, United States
Invited?: Yes, Keynote?: No
3. (2019). Invited Lecture. Automatically Scalable Computation. EPFL, Lausanne, Switzerland
Invited?: Yes, Keynote?: No
4. (2019). Invited speaker. Systems Research - Construed Broadly. Bristol University Cybersecurity Colloquium, Bristol, United Kingdom
Invited?: Yes, Keynote?: No
5. (2019). Distinguished Lecture. Systems Research - Construed Broadly. University of Waterloo, Ontario, Canada
Invited?: Yes, Keynote?: No
6. (2019). Distinguished Lecture. Systems Research - Construed Broadly. Joint Duke University, University of North Carolina/Chapel Hill, NC State, North Carolina, United States
Invited?: Yes, Keynote?: No
7. (2019). Keynote. More than Storage. Mass Storage Systems and Technology(MSST), Santa Clara, United States
Invited?: Yes, Keynote?: Yes
8. (2018). Keynote. An NVM Carol. International Conference on Data Engineering, Paris, France
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes
9. (2018). Flipped on Teaching. Harvard Club of Rochester Annual Meeting, Rochester, United States
Main Audience: General Public
Invited?: Yes, Keynote?: Yes
10. (2018). Distinguished Lecture. Systems Research - Construed Broadly. University of Washington, Washington, United States
Invited?: Yes, Keynote?: No
11. (2018). Guest Lecture. An NVM Carol. University of Santa Cruz Data Management course, Santa Cruz, United States
Invited?: Yes, Keynote?: No
12. (2018). Automatically Scalable Computation. DE Shaw Seminar, New York, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
13. (2018). An NVM Carol. UBC Computer Science 50th Anniversary Celebration, Vancouver, Canada
Main Audience: General Public
Invited?: Yes, Keynote?: No
14. (2018). Distinguished Lecture. Automatically Scalable Computation. Johns Hopkins University, Maryland, United States
Invited?: Yes, Keynote?: No
15. (2018). Keynote. Automatically Scalable Computing. Israeli Systems Research Conference (SYSTOR), Haifa, Israel
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes

16. (2017). Berkeley DB: The Good, The Bad, and the Ugly. Workshop on Failed Aspirations in Database Systems (FADS), Munich, Germany
Main Audience: Researcher
Invited?: Yes, Keynote?: No
17. (2017). Keynote. Automatically Scalable Computation. CodeMESH, London, United Kingdom
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes
18. (2017). Distinguished Lecture Series. Automatically Scalable Computation. Northwestern Computer Science, Evanston, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
19. (2017). Data Provenance: From Theory to Practice. Monthly Meeting of the IEEE Computer Society, Cambridge, United States
Main Audience: Knowledge User
Invited?: Yes, Keynote?: No
20. (2016). Automatically Scalable Computation. 2Sigma Distinguished Lecture Series, New York, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
21. (2016). Careers in Academia. Women Engineers Code (WeCode), Cambridge, United States
Main Audience: General Public
Invited?: Yes, Keynote?: No
22. Mark Miller, David Mazières, Yuanyuan Zhou. (2015). Is achieving security a hopeless quest?. SOSP History Day, Monterey, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
23. (2015). Automatically Scalable Computation. International Conference on Super Computing, Newport Beach, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes
24. Jonathan Zittrain, Yochai Benkler, Joseph Nai, Sophia Roosth. (2015). The New Cyber Infrastructure. Annual Meeting of the World Economic Forum, Davos, Switzerland
Main Audience: General Public
Invited?: Yes, Keynote?: No
25. (2013). World Domination Through Provenance. Workshop on Theory and Practice of Provenance, San Jose, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes
26. (2013). Keynote. Automatically Scalable Computation. RICON, New York, United States
Main Audience: Knowledge User
Invited?: Yes, Keynote?: Yes
27. Regina Herzlinger. (2013). Distinguished Lecture Series. Enabling Health Care Innovation through Technology: The Role of Academia. Washington University School Public Health, St. Louis, United States
Main Audience: General Public
Invited?: Yes, Keynote?: No

Publications

Journal Articles

1. Pasquier, T., Singh, J., Powles, J., Eysers, D., Seltzer, M., Bacon, J. (2018). Data Provenance to Audit Compliance with Privacy Policy in the Internet of Things. *Journal of Personal and Ubiquitous Computing*. 22(2): 333-344.
Published
Refereed?: Yes
2. Rao, M.*, Bacon, D.F., Parkes, D, Seltzer, M. (2018). Incentivizing Deep Fixes in Software Economics. *IEEE Transactions on Software Engineering*. : 21 pages.
Published
Refereed?: Yes
3. Pasquier, T., Lau, M, Han*, X, Fong, E., Lerner, B., Boose, E, Crosas, M., Ellison, A., Seltzer, M. (2018). Sharing and Preserving Computations Analysis for Posterity with Encapsulator. *IEEE Computing in Science and Engineering*. 20(4): 111.
Published
Refereed?: Yes
4. Angelino, E., Larus-Stone*, N, Alabi, D.*, Seltzer, M., Rudin, C. (2018). Learning Certifiably Optimal Rule Lists for Categorical Data. *Journal of Machine Learning Research*. 18(234): 1-78.
Published
Refereed?: Yes
5. Pasquier, T., Lau, M., Trisovic, A., Boose, E., Couturier, B., Crosas, M., Ellison, A., Gibson, V., Jones, C., Seltzer, M. (2017). If these data could talk. *Nature Scientific Data*. 18: 5 pages.
Published
Refereed?: Yes
6. Daniel Margo*, Margo Seltzer. (2015). A Scalable Distributed Graph Partitioner. *Proceedings of the VLDB Endowment*. 8(12): 1478-1489.
Published
Refereed?: Yes
7. Carata, L., Akoush, S. Balakrishynan, N., Bytheway, T., Sohan, R., Seltzer, M., Hopper, A. (2014). A Primer on Provenance. *Communications of the ACM* 57. 5: 52-60.
Published
Refereed?: Yes
8. Herzlinger, R., Seltzer, M., Gaynor, M. (2013). Applying KISS to Healthcare Information Technology. *Computer*. 46(11): 72-74.
Published
Refereed?: Yes

Reports

1. Peter Kraft*, Amos Waterland*, Daniel Y Fu*, Anitha Gollamudi*, Shai Szulanski*, Margo Seltzer. (2018). Automatic Parallelization of Sequential Programs. 12. arXiv.
2. Hongyu Yang*, Cynthia Rudin, Margo Seltzer. (2017). Scalable Bayesian Rule Lists. 31. arXiv.

Conference Publications

1. Pasquier, T., Eysers, D., Seltzer, M., (2019). Visionpaper – From Here to Provtopia. Proceedings of the 2019 Poly Workshop (Towards Polystores that manage multiple Databases, Privacy, Security, and/or Policy Issues for Heterogeneous Data),
Paper
Accepted
Refereed?: Yes, Invited?: No
2. Xueyuan (Michael) Han, Thomas Pasquier, Adam Bates, Robert N. M. Watson, James Mickens, Margo Seltzer. (2019). UNICORN: Revisiting Host-Based Intrusion Detection in the Age of Data Provenance. 2019 Computer and Communications Security Conference,
Paper
Submitted
Refereed?: No, Invited?: No
3. Pasquier, T, Han, X*, Moyer, T., Bates, A., Hermant, O, Eysers, D., Bacon, J., Seltzer, M. (2018). Runtime Analysis of Whole-System Provenance. Proceedings of the 2018 Conference on Computer and Communications Security (CCS'18). Conference on Computer and Communications Security (CCS'18), Toronto, Canada (1601-1616)
Conference Date: 2018/10
Paper
Published
Refereed?: Yes, Invited?: Yes
4. Han, X*, Pasquier, T., Seltzer, M. (2018). Provenance-based Intrusion Detection: Opportunities and Challenges. Proceedings of the Workshop on the Theory and Practice of Provenance (TAPP 2018). Workshop on the Theory and Practice of Provenance (TAPP 2018), London, United Kingdom (4 pages)
Conference Date: 2018/7
Paper
Published
Refereed?: Yes, Invited?: Yes
5. Huang, Y*, Pavlovic, M.*, Marathe, V., Seltzer, M., Harris, T., Byan, S. (2018). Closing the Performance Gap Between Volatile and Persistent Key-Value Stores Using Cross-Referencing Logs. Proceedings of the 2018 USENIX Annual Technical Conference. 2018 USENIX Annual Technical Conference, Boston, United States (967-979)
Conference Date: 2018/6
Paper
Published
Refereed?: Yes, Invited?: No
6. Angelina, E., Larus-Stone*, N, Alabi, D.*, Seltzer, M, Rudin, C. (2017). Learning Certifiably Optimal Rule Lists for Categorical Data. Proceedings of the 23rd ACM Conference on Knowledge Discovery and Data Mining (KDD2017). 23rd ACM Conference on Knowledge Discovery and Data Mining (KDD2017), Halifax, Canada (35-44)
Conference Date: 2017/8
Paper
Published
Refereed?: Yes, Invited?: No

7. Yang, H.*, Rudin, C., Seltzer, M. (2017). Scalable Bayesian Rule Lists. Proceedings of the International Conference on Machine Learning - Volume 70. International Conference on Machine Learning (ICML 2017), Sydney, Australia (3921-3930)
Conference Date: 2017/8
Paper
Published
Refereed?: Yes, Invited?: No
8. Xueyuan Han*, Thomas Pasquier, Mark Goldstein*, Margo Seltzer. (2017). FRAPpuccino:Fault-detection through Runtime Analysis of Provenance. Workshop on Hot Topics in Cloud Computing (HotCloud 17), Santa Clara, United States
Conference Date: 2017/7
Paper
Published
Refereed?: Yes, Invited?: No
9. Thomas Pasquier, Xueyuan Han*, Mark Goldstein*, Thomas Moyer, David Eyers, Margo Seltzer, Jean Bacon. (2017). Practical Whole-System Provenance Capture. Proceedings of the 2017 Symposium on Cloud Computing. Symposium on Cloud Computing, Santa Clara, United States (405-418)
Conference Date: 2017/7
Paper
Published
Refereed?: Yes, Invited?: No
10. Virendra Marathe, Margo Seltzer, Steve Byan, Tim Harris. (2017). Persistent Memcached:Bringing Legacy Code to Byte-Addressable Persistent Memory. Workshop on Hot Topics in Storage and File Systems (HotStorage 17), Santa Clara, United States
Conference Date: 2015/7
Paper
Published
Refereed?: Yes, Invited?: No
11. Jacob Whitehill, Margo Seltzer. (2017). A Crowdsourcing Approach to Collecting Tutorial Videos -- Toward Personalized Learning-at-Scale. Proceedings of the Fourth (2017) ACM Conference on Learning@ Scale, Cambridge, United States (157-160)
Conference Date: 2015/4
Paper
Published
Refereed?: Yes, Invited?: No
12. Schuyler Eldridge*, Jonathan Appavoo, Amos Waterland*, Margo Seltzer. (2015). Towards General-Purpose Neural Network Computing. International Conference on Parallel Architectures and Compilation Techniques (PACT), Petrozavodsk, Russian Federation (99-112)
Conference Date: 2015/9
Paper
Published
Refereed?: Yes, Invited?: No
13. Balakrishnan, N., Bytheway, T., Carata, L., Chick, O., Snee, J., Akoush, S., Sohan, R., Seltzer, M., Hopper, A. (2015). Recent Advances in Computer Architecture: The Opportunities and Challenges for Provenance. Workshop on the Theory and Practice of Provenance (TaPP), Edinburgh, United Kingdom
Conference Date: 2015/7
Paper
Published
Refereed?: Yes, Invited?: No

14. Macko, P.*, Margo, D.*, Marathe, V., Seltzer, M. (2015). LLAMA: Efficient Graph Analytics Using Large Multiversioned Arrays. 31st IEEE International Conference on Data Engineering (ICDE 2015), Seoul, Korea, Republic of (363-374)
Conference Date: 2015/4
Paper
Published
Refereed?: Yes, Invited?: No
15. Appavoo, J., Waterland, A.*, Eldridge, S.*, Zhao, K.*, Joshi, A., Homer, S., Seltzer, M. (2014). Programmable Smart Machines: A Hybrid Neuromorphic Approach to General Purpose Computation. Proceedings of Neuromorphic Architectures (NeuroArch) Workshop at 41th International Symposium on Computer Architecture (ISCA-41),
Paper
Published
Refereed?: Yes, Invited?: No
16. Malvika Rao*, David Parkes, Margo Seltzer, David Bacon. (2014). A Framework for Incentivizing Deep Fixes. WIT-EC. Workshop in Incentives and Trust in E-Commerce, Quebec City, Canada
Conference Date: 2014/7
Paper
Published
Refereed?: Yes, Invited?: No
17. Elaine Angelino*, Eddie Kohler, Amos Waterland*, Margo Seltzer, Ryan Adams. (2014). Accelerating MCMC via parallelpredictive prefetching. Conference on Uncertainty in Artificial Intelligence, Quebec City, Canada
Conference Date: 2014/7
Paper
Published
Refereed?: Yes, Invited?: No
18. Amos Waterland*, Elaine Angelino*, Ryan Adams, Jonathan Appavoo, Margo Seltzer. (2014). ASC: Automatically Scalable Computation. ASPLOS. Conference on Architecture Support for Programming Languages and Operating Systems, Salt Lake City, United States
Conference Date: 2014/3
Paper
Published
Refereed?: Yes, Invited?: No
19. Michelle Borkin, Christine Yeh*, Madelaine Boyd*, Peter Macko*, Krzysztof Gajos, Margo Seltzer, Hanspeter Pfister. (2013). Evaluation of Filesystem Provenance Visualization Tools. Conference on Information Visualization, Atlanta, United States
Conference Date: 2013/10
Paper
Published
Refereed?: Yes, Invited?: No
20. Peter Macko*, Daniel Margo*, Margo Seltzer. (2013). Local Clustering in Provenance Graphs. ACM international conference on Information & Knowledge Management, Burlingame, United States (835-840)
Conference Date: 2013/10
Paper
Published
Refereed?: Yes, Invited?: No

21. Peter Macko*, Daniel Margo*, Margo Seltzer. (2013). Performance Introspection of Graph Databases. Proceedings of the 6th International Systems and Storage Conference, Haifa, Israel (18)
Conference Date: 2013/7
Paper
Published
Refereed?: Yes, Invited?: No
22. Waterland, A. *, Angelino, E. *, Cubuk, E. *, Kaziras, E., Adams, R., Appavoo, J., Seltzer, M. (2013). Computational Caches. Proceedings of the 6th International Systems and Storage Conference, Haifa, Israel (8)
Conference Date: 2013/7
Paper
Published
Refereed?: Yes, Invited?: No
23. David Holland*, Elaine Angelino*, Gideon Wald*, Margo Seltzer. (2013). Flash Caching on theStorage Client. USENIX ATC. USENIX Annual Technical Conference, San Jose, United States (127-138)
Conference Date: 2013/6
Paper
Published
Refereed?: Yes, Invited?: No

Intellectual Property

Patents

1. Committing copy-on-write transaction with a persist barrier for a persistent object including payload references. United States. 10229012.
Patent Status: Granted/Issued
Year Issued: 2019
Inventors: Virendra J Marathe, Steve Byan, Margo I Seltzer, Achin Mishra, Ameer Trivedi
2. Efficient memory management for persistent memory. United States. 15675528.
Patent Status: Granted/Issued
Year Issued: 2018
Inventors: Virendra J Marathe, Steve Byan, Margo I Seltzer, Achin Mishra, Ameer Trivedi
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