JAMES R. LARUS

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EDUCATION

♦ Ph.D. (Computer Science), University of California at Berkeley, May 1989. "Restructuring Symbolic Programs for Concurrent Execution on Multiprocessors." (Prof. Paul Hilfinger)

♦ M.S. (Computer Science), University of California at Berkeley, Dec. 1982. "Glean: An Interactive Program Analysis System for Franz Lisp." (Prof. Richard Fateman)

♦ A.B. magna cum laude (Applied Mathematics), Harvard University, Jun. 1980.

ACADEMIC AND INDUSTRIAL EXPERIENCE

♦ Dean, School of Computer and Communication Sciences, EPFL (École Polytechnique Fédérale de Lausanne), Lausanne Switzerland (Oct. 2013–Sept. 2021).

♦ Professor, School of Computer and Communication Sciences, EPFL (Oct. 2013–Sept. 2023).

♦ Principal Researcher, Microsoft Research, Redmond, Washington (Feb. 2012–Sept. 2013).

♦ Director, eXtreme Computing Group (XCG), Microsoft Research (May 2008–Feb. 2012).

♦ Research Area Manager, Microsoft Research (Dec. 2005–May 2008).

♦ Assistant Director, Microsoft Research (Dec. 2003–Sept. 2004).

♦ Affiliated Associate Professor, Computer Science Department, University of Washington (2000–2005).

♦ Senior Researcher, Microsoft Research, (May 1998–Dec. 2005).

♦ Visiting Researcher, Microsoft Research, (Aug. 1997–Jul. 1998).

♦ Associate Professor, Computer Sciences Department, University of Wisconsin-Madison (Jun. 1995–Jul. 1999).

♦ Assistant Professor, Computer Sciences Department, University of Wisconsin-Madison (Sept. 1989–Jun. 1995).

♦ Research Assistant, Computer Science Division, University of California Berkeley (Sept. 1984–Apr. 1989).

♦ Computer Scientist, Bolt Beranek and Newman, Cambridge, MA (Sept. 1983–Aug. 1984).

♦ Research Assistant, Computer Science Division, University of California Berkeley (Jan. 1982–Aug. 1983).

♦ Software Engineer, General Systems Group, Cambridge, MA (Jun. 1980–Jun. 1981).

OTHER PROFESSIONAL EXPERIENCE

♦ Advisory Board, Beatdapp, 2020–.

♦ Consultant: Franz, Inc., H3, IBM, Mercury Interactive, and TranSwitch.

♦ Expert witness: Fliesler, Dubb, Meyer & Lovejoy (Pure Software v. AIB Software), Shneidman, Myers, Dowling, and Blumefield (Ackerman v. State of Wisconsin, DOA).

HONORS AND AWARDS

♦ Paper selected for ISCA@50 Retrospective: 1996–2022, "A Reconfigurable Fabric for Accelerating Large-Scale Datacenter Services."

♦ Michel Servit Best Paper Award, "Bitfiltrator: A General Approach for Reverse-Engineering Xilinx Bitstream Formats," *FPL 2022*.

♦ 2018 MICRO Test of Time Award, "Efficient Path Profiling," *MICRO 29*.

♦ EuroSys 2016 Test of Time Award, "Language Support for Fast and Reliable Message-based Communication in Singularity OS," *EuroSys 2006.*

♦ IEEE MICRO Top Picks 2015, "A Reconfigurable Fabric for Accelerating Large-Scale Datacenter Services," *ISCA 2014.*

♦ Best Paper, "SIMD Parallelization of Applications that Traverse Irregular Data Structures," *Code Generation and Optimization (CGO 2013)*. SIGPLAN Research Highlights 2013.

♦ Best Paper, "Join-Idle-Queue: A Novel Load Balancing Algorithm for Dynamically Scalable Web Services," *IFIPS Performance 2011*.

♦ IEEE Software's 25th-Anniversary Top Picks, "Righting Software," 2009.

♦ ►ACM Fellow, 2006.

♦ Best Paper, "Language Support for Fast and Reliable Message-based Communication in the Singularity OS," *EuroSys 2006*.

♦ Paper selected for *20 Years of PLDI*, "Improving Data-Flow Analysis with Path Profiling," 2003.

♦ Most Innovative Paper, "Whole Program Paths," *PLDI 1999*.

♦ Paper selected for *25 Years of ISCA*, "Typhoon: A User-Level Shared-Memory System," 1998.

♦ Most Influential Paper, "Exploiting Hardware Performance Counters with Flow and Context Sensitive Profiling," PLDI 1997.

♦ IBM Partnership Award, 1996.

♦ ►National Science Foundation Young Investigator (NYI), 1993.

♦ Best Paper, "Cooperative Shared Memory: Software and Hardware for Scalable Multiprocessors," *ASPLOS 1993*.

♦ California Microelectronics Fellowship, 1985–87.

♦ Harvard College Scholar, 1976–80.

EDITORSHIP AND EDITORIAL BOARDS

♦ Editor-in-Chief, *Communications of the ACM (CACM)*, 2022–.

♦ Guest editor, Special Issue on PPoPP 15, *ACM Transactions on Parallel Computing*, 2016.

♦ Contributed and Review articles co-chair, *Communications of the ACM (CACM)*, 2015–2021.

♦ Associate editor, *ACM Transactions on Architecture and Code Optimization (TACO)*, 2015–2020.

♦ Contributed and Review articles associate editor, *Communications of the ACM (CACM)*, 2007–2015.

♦ Associate editor, *Computer Architecture Letters*, IEEE Computer Society, 2007–2011.

♦ Editorial board, *Software–Practice & Experience*, Wiley & Sons, 2007–2018.

♦ Editorial board, *Open Software Engineering Journal*, Bentham Science Publishers, 2007–2014.

PROFESSIONAL BOARDS

♦ Governing board, Institute Science, Artificial Intelligence, and Technology (INSAIT) at Sofia University St. Kliment Ohridski, Bulgaria, 2021–.

♦ Chair, ACM Fellow Selection Committee, 2021.

♦ Review committee of the Computer Science Departments, TU Delft, Nov. 2021.

♦ Governing board, EPFL Center for Intelligent Systems, 2021–2023.

♦ Academic Director, International Risk Governance Council Center (IRGC), 2019–2023.

♦ Founder, governing board, and steering committee, EPFL Center for Intelligent Systems, 2018–2020.

♦ ACM Publications Board, 2020–.

♦ Chair, Review Committee of the Faculty of Computer Science, Technion, Israel, 2018.

♦ IEEE CS research advisory board, 2018–2019.

♦ Executive Committee, Capital Markets and Technology Association (CMTA), 2018–.

♦ Advisory board, International Risk Governance Council Center (IRGC) at EPFL, 2018–2023.

♦ ACM Fellow selection committee, 2016–2021.

♦ Advisory board, Zurich Digital Festival, 2016–2017.

♦ Steering committee, Swiss Data Science Center (SDSC), 2015–2021.

♦ Advisory board, Huawei American Software Lab, 2014–2016.

♦ Board, Informatics Europe, 2016–2019.

♦ Board, Swiss Informatics Society Special Interest Group SIRA, 2014–2020.

♦ Steering Committee, Microsoft-Swiss Joint Research Center, 2013–2023.

♦ Advisory board, Computer Science and Engineering, University of California, Riverside, 2012.

♦ Visiting committee, Harvard School of Engineering and Applied Sciences, 2009.

GOVERNMENT COMMITTEES

♦ DARPA Information Science and Technology (ISAT) study group, 2013–2016.

♦ *Advancing Software-Intensive Systems Producibility*, Computer Science and Telecommunications Board of the National Academies, 2006 (Report: *Critical Code: Software Producibility for Defense*, National Research Council, 2010).

♦ *Workshop on Certifiably Dependable Software Systems*, Computer Science and Telecommunications Board of the National Academies, 2004.

♦ Evaluation Committee of the INRIA Program 2A: Software Engineering and Symbolic Computing, 2002.

♦ *Panel on Engineering for Complex System*, National Research Council of the National Academies, 2002.

♦ *Fundamentals of Computer Science*, Computer Science and Telecommunications Board of the National Academies, 2001. (Report: *Computer Science: Reflections on the Field*, National Research Council, 2004.)

OTHER PROFESSIONAL ACTIVITIES

♦ ERC Starting grants PE6 panel, 2022.

♦ Panelist, Center for AI and ML opening, TU Vienna, Dec. 2021.

♦ IEEE Frances E. Allen medal committee, 2021–2023.

♦ Panelist, Huawei Workshop on NextGen Cloud Technology, 2020.

♦ 15th Berlin Debate on Science and Science Policy, Robert Bosch Stiftung, 2020.

♦ Academy of Finland RDI Partnership Networks Review Panel, 2020.

♦ WWTF (Vienna Science and Technology Fund) call jury on Digital Humanism, 2020.

♦ Judge, START Hack, St. Gallen, 2018.

♦ Most influential paper selection committee for PLDI 2007, 2017.

♦ VMware systems research award selection committee, 2016–2018.

♦ Cor Baayen award selection committee (CBASC), 2016–2020.

♦ Judge, SIX Hackathon, Zurich 2015.

♦ DoE review panel, Exascale Operating and Runtime Systems, 2013.

♦ NSF review panel, Expeditions in Computing, 2011.

♦ CRA CIFellows selection committee, 2011.

♦ CRA CIFellows selection committee, 2010.

♦ PLDI 2000 Best Paper selection committee, 2010.

♦ ACM Taskforce on membership, 2009.

♦ CRA CIFellows selection committee, 2009.

♦ ACM National lecturer.

♦ NSF review panel, Programming Languages, 1998.

♦ NSF review panel, Career Awards, 1996.

♦ NSF review panel, Postdoctoral Research Associates, 1995.

♦ NSF review panel, Research Initiation Awards, 1991.

CONFERENCE ORGANIZING AND STEERING COMMITTEES

♦ Chair, ASPLOS Steering Committee, 2021–2022.

♦ ASPLOS Steering Committee, 2020–2023.

♦ Co-organizer, ISAT/DARPA Workshop on Future of Storage, New York, New York, May 2016.

♦ Co-organizer, ISAT/DARPA Workshop on Accuracy Trade-Offs Across the System Stack for Performance and Energy, Orlando, FL, Feb. 2014.

♦ Steering Committee, Workshop on Advancing Computer Architecture Research: Popular Parallel Programming, San Diego, CA, Feb. 2010.

♦ Steering Committee, Workshop on Programming Language Curricula, Cambridge, MA, May 2008.

♦ Organizing committee, Workshop on Future Directions of Compiler Research, Irvine, CA, Feb. 2006.

♦ Steering committee, Architectural Support for Programming Languages and Operating Systems (ASPLOS XII), 2006.

♦ Co-Organizer, Workshop on the Evaluation of Software Defect Detection Tools (Bugs 05), Jun. 2005.

♦ Steering committee, Workshop on Feedback-Directed and Dynamic Optimization.

♦ Co-Organizer and Program Committee Chair, Workshop on Compiler Support for System Software (WCSSS 1999), May 1999.

♦ Co-Organizer, Workshop on Profile and Feedback-Directed Compilation, Oct. 1998.

CONFERENCE CHAIR AND PROGRAM COMMITTEES

♦ External review committee, *Principles and Practice of Parallel Programming (PPoPP 2024)*, Feb. 2024.

♦ Program committee, *Programming Languages Design and Implementation (PLDI 2022)*, Jun. 2022.

♦ External review committee, *Principles and Practice of Parallel Programming (PPoPP 2021)*, Feb. 2021.

♦ ►General chair, *Architectural Support for Programming Languages and Operating Systems (ASPLOS 2020)*, Lausanne, Switzerland, Mar. 2020.

♦ External review committee, *Programming Languages Design and Implementation (PLDI 2019)*, Phoenix, AZ, Jun. 2019.

♦ External review committee, *International Symposium on Computer Architecture (ISCA 2018)*, Los Angeles, CA, Jun. 2018.

♦ External review committee, *Principles and Practice of Parallel Programming (PPoPP 2018)*, Vienna, Austria, Feb. 2018.

♦ External review committee, *Architectural Support for Programming Languages and Operating Systems (ASPLOS 2018)*, Williamsburg, VA, Mar. 2018.

♦ Program committee, *Symposium on Operating System Principles (SOSP 2015)*, Monterey, CA, Oct. 2015.

♦ Program committee, *SNAPL: Inaugural Summit on Advances in Programming Languages*, Asilomar CA, May 2015.

♦ ►Program committee chair, *Principles and Practice of Parallel Programming (PPoPP 2014)*, Orlando, Florida, Feb. 2014.

♦ Program committee, *International Symposium on Computer Architecture and High-Performance Computing (SBAC-PAD 2012)*, Oct. 2012.

♦ Program committee, *High Integrity Language Technology: SIGAda Annual Conference*, Dec. 2012.

♦ External review committee, *MICRO-45*, Dec. 2012.

♦ Program committee, *SPLASH 2012 RACES Workshop on Relaxing Synchronization for Multicore and Manycore Scalability*, Oct. 2012.

♦ Program committee, *USENIX HotPar 2012*, Jun. 2012.

♦ Program committee, *Workshop on Memory Systems Performance and Correctness (MSPC 2011)*, Jun. 2011.

♦ Program committee, *SIGOPS Asia-Pacific Workshop on Systems (APSys 2011)*, Jul. 2011.

♦ Program committee, *Workshop on Determinism and Correctness in Parallel Programming*, Mar. 2011.

♦ Program committee, *USENIX HotPar 2011*, May 2011.

♦ Program committee, *Programming Languages Design and Implementation (PLDI 2011)*, Jun. 2011.

♦ Program committee, *Architectural Support for Programming Languages and Operating Systems (ASPLOS 2011)*, Mar. 2011.

♦ Program committee, *Workshop on Concurrency for the Application Programmer*, Nov. 2010.

♦ Program committee, *Symposium on Cloud Computing (SOCC 2010)*, Jun. 2010.

♦ Program committee, *GreenMetrics 2010 Workshop*, Jun. 2010.

♦ Program committee, *6th Workshop on the Interaction between Operating System and Computer Architecture (WIOSCA 2010)*, Jun. 2010.

♦ External review committee, *International Symposium on Computer Architecture (ISCA 2010)*, Jun. 2010.

♦ Program committee, *USENIX HotPar 2010*, Jun. 2010.

♦ Program committee, *EuroSys 2010*, Apr. 2010.

♦ Program committee, *Code Generation and Optimization (CGO)*, Mar. 2010.

♦ Program committee, *GreenMetrics Workshop*, Jun. 2009.

♦ Program committee, *Fun Ideas and Thoughts (FIT)*, PLDI, Jun. 2009

♦ Program committee, *First Workshop on Asynchrony in the PGAS Programming Model (APGAS09)*, Jun. 2009.

♦ ►Program co-chair and co-organizer, *First USENIX Workshop on Hot Topics in Parallelism (HotPar' 09)*, Mar. 2009.

♦ Program committee, *Symposium on Parallel Algorithms and Architectures (SPAA 08)*, Jun. 2008.

♦ ►Program committee chair, *Architectural Support for Programming Languages and Operating Systems (ASPLOS' 08)*, 2008.

♦ Program committee, *Programming Language Design and Implementation (PLDI' 07)*, Jun. 2007.

♦ Program committee, *Workshop on Architectural and System for Improving Software Dependability*, Oct. 2006.

♦ Program committee, *Workshop on Programming Models for Ubiquitous Parallelism*, Sept. 2006.

♦ Program committee, *Workshop on Transactional-Memory Workloads*, Jun. 2006.

♦ Program committee, *Principles and Practice of Parallel Programming (PPoPP)*, 2006.

♦ Program committee, *Formal Engineering Methods (ICFEM 2005)*, Nov. 2005.

♦ Program committee, *Formal Engineering Methods (ICFEM 2004)*, Nov. 2004.

♦ Program committee, *Parallel Architecture and Compilation Techniques (PACT 04)*, Sept. 2004.

♦ Program committee, *Workshop on Runtime Verification (RV' 04)*, Apr. 2004.

♦ Program committee, *Verification, Model Checking, and Abstract Interpretation (VMCAI 04)*, Jan. 2004.

♦ Program committee, *Principles and Practices of Parallel Programming (PPoPP 03)*, May 2003.

♦ Program committee, *Code Generation and Optimization (CGO-1)*, Mar. 2003.

♦ Program committee, *Architectural Support for Programming Languages and Operating Systems (ASPLOS-X)*, Oct. 2002.

♦ Program committee, *Workshop on Runtime Verification (RV 2002)*, Jul. 2002.

♦ Program committee, *International Conference on Software Engineering (ICSE 2003)*, May 2003.

♦ Program committee, *Workshop on Dynamic Program Monitoring and Analysis*, Jul. 2001.

♦ Program committee, *Parallel Architecture and Compilation Techniques (PACT 2001)*, Sept. 2001.

♦ Program committee, *First SIGPLAN Workshop on Optimizations of Middleware and Distributed Systems*, Jun. 2001.

♦ Program committee, *Compiler Optimization meets Compiler Verification (COCV 2002)*, Apr. 2002.

♦ Program committee, *Principles and Practices of Parallel Programming (PPoPP 2000)*, Jun. 2000.

♦ Program committee, *Static Analysis Symposium (SAS' 01)*, Jul. 2001.

♦ Program committee, *The Best of PLDI Collection*, 1970–1996.

♦ Program committee, *Workshop on Feedback-Directed Optimization*, Dec. 2000.

♦ Program committee, *Workshop on Feedback-Directed Optimization*, Nov. 1999.

♦ Program committee, *Workshop on Binary Translation*, Nov. 1999.

♦ ►General Chair, *Programming Language Design and Implementation (PLDI 2000)*, Jun. 2000.

♦ Program committee, *Principles and Practices of Parallel Programming (PPoPP)*, May 1999.

♦ Program committee, *Workshop on High-Level Parallel Programming Models and Supportive Environments (HIPS' 99)*, Apr. 1999.

♦ Program committee, *USENIX Conference on Domain-Specific Languages*, Oct. 1999.

♦ Program committee, *Programming Languages Design and Implementation (PLDI 1993)*, Jun. 1993.

♦ Program committee, *Principles of Programming Languages (POPL 1993)*, Jan. 1993.

♦ Program committee, *Principles and Practices of Parallel Programming (PPoPP)*, Apr. 1991.

♦ Program committee, *Programming Languages Design and Implementation (PLDI 1991)*, Jun. 1991.

BOOKS AND COLLECTIONS

♦ James Larus, "Evolution of Computing" in Carlo Ghezzi, Julian Nida-Rümelin, Bashar Nuseibeh, Erich Prem, Allison Stanger, Hannes Werthner, eds., *Introduction to Digital Humanism*, Springer, 2023 (to appear).

♦ James Larus, "The Curation Chokepoint," in Hannes Werthner, Erich Prem, Edward A. Lee, and Carlo Ghezzi, eds., *Perspectives on Digital Humanism*, pp. 153–158, Springer, 2021.

♦ James Larus, Dennis Gannon, "Multicore Computing and Scientific Discovery," in Tony Hey, Stewart Tansley, and Kristin Tolle, eds., *The Fourth Paradigm: Data-Intensive Scientific Discovery,* Microsoft Research 2009.

♦ Tim Harris, James Larus, Ravi Rajwar, *Transactional Memory: 2nd edition*, Morgan & Claypool Publishers, 2010.

♦ James Larus, Ravi Rajwar, *Transactional Memory*, Morgan & Claypool Publishers, 2007.

♦ James Larus, Brad Richards, Guhan Viswanathan, "Parallel Programming in C**: A Large-Grain Data-Parallel Programming Language," in Gregory Wilson and Paul Lu, eds., *Parallel Programming Using C++*, MIT Press, 1996

♦ Steven Reinhardt, Mark Hill, James Larus, Alvin Lebeck, James Lewis, David Wood, "The Wisconsin Wind Tunnel: Virtual Prototyping of Parallel Computers," in Laxmi Bhuyan and Xiaodong Zhang, eds., *Multiprocessor Performance Measurement and Evaluation*, IEEE Computer Society Press, 1994.

♦ James Larus, Satish Chandra, and David Wood, "CICO: A Practical Shared-Memory Programming Performance Model," in T. Hey and J. Ferrante, eds., *Portability and Performance for Parallel Processing*, John Wiley & Sons, 1994.

♦ James Larus, "Assemblers, Linkers, and SPIM," in David Patterson and John Hennessy, *Computer Organization & Design: The Hardware/Software Interface*, Morgan Kaufman, 1993.

♦ Mark Hill, Susan Eggers, James Larus, et al., "Design Decisions in SPUR," in Benjamin Wah and C. V. Ramamoorthy, eds., *Computers for Artificial Intelligence Processing*, John Wiley & Sons, 1990.

JOURNALS

♦ Carmela Troncoso, Dan Bogdanov, Edouard Bugnion, Sylvain Chatel, Cas Cremers, Seda Gürses, Jean-Pierre Hubaux, Dennis Jackson, James Larus, Wouter Lueks, Rui Oliveira, Mathias Payer, Bart Preneel, Apostolos Pyrgelis, Marcel Salathé, Theresa Stadler, Michael Veale, "Deploying Decentralized, Privacy-

Preserving Proximity Tracing," *Communications of the ACM (CACM),* Vol. 65, No, 9, Sept. 2022, pp. 48–57.

♦ James Larus, "CACM Community," EIC's letter, *Communications of the ACM (CACM)*, Vol. 65, No, 7, Jul. 2022, pp. 5.

♦ James Larus, "Whose Smartphone is It?," *Communications of the ACM (CACM)*, Vol. 64, No, 9, Sept. 2021, pp. 41–42.

♦ Nanina Anderegg, Daniele Antonioli, Tala Ballouz, Edouard Bugnion, Srdjan Čapkun, Dennis Jackson, Sang-Il Kim, James Larus, Nicola Low, Wouter Lueks, Dominik Menges, Cédric Moullet, Mathias Payer, Julien Riou, Theresa Stadler, Carmela Troncoso, Effy Vayena, Viktor von Wyl, "Early evidence of effectiveness of digital contact tracing for SARS-CoV-2 in Switzerland," *Swiss Medical Weekly*, 2020;150:w20457 Dec. 2020.

♦ James Larus, Luis Ceze, Karin Strauss, "ASPLOS Report," *IEEE Design & Test*, Vol. 37, No. 3, pp. 119–123, Jun. 2020.

♦ Sheath DJ, Ruiz de Castañeda R, Bempong NE, Raviglione M, Machalaba C, Pepper MS, Vayena E, Ray N, Wernli D, Escher G, Grey F, Elger BS, Helbing D, Kleineberg KK, Beran D, Miranda JJ, Huffman MD, Hersch F, Andayi F, Thumbi SM, D'Acremont V, Hartley MA, Zinsstag J, Larus J, Rodríguez-Martínez M, Guerin PJ, Merson L, Nguyen VK, Rühli F, Geissbuler A, Salathé M, Bolon I, Boehme C, Berkley S, Valleron AJ, Keiser O, Kaiser L, Eckerle I, Utzinger J, Flahault A., "Precision global health: a roadmap for augmented action," *Public Health and Emergency,* 2020.

♦ Carmela Troncoso, Mathias Payer, Jean-Pierre Hubaux, Marcel Salathe, James Larus, Wouter Lueks, Theresa Stadler, Apostolos Pyrgelis, Daniele Antonioli, Ludovic Barman, Sylvain Chatel, Kenneth Paterson, Srdjan Čapkun, David Basin, Jan Beutel, Dennis Jackson, Marc Roeschlin, Patrick Leu, Bart Preneel, Nigel Smart, Aysajan Abidin, Seda Gürses, Michael Veale, Cas Cremers, Michael Backes, Nils Ole Tippenhauer, Reuben Binns, Ciro Cattuto, Alain Barrat, Dario Fiore, Manuel Barbosa, Rui Oliveira, and Jose Pereira, "Decentralized Privacy-Preserving Proximity Tracing," *IEEE Computer Society Bulletin of the Technical Committee on Data Engineering, Special Issue on Data Technologies Behind Digital Contact Tracing for COVID19*, Vol. 43, No. 2, Jun. 2020.

♦ James Larus, Chris Hankin, "Regulating Automated Decision Making," *Communications of the ACM (CACM),* Vol. 61, No. 8, pp. 5, Aug. 2018.

♦ James Larus, "Technical Perspective: A Simple, Elegant Approach to Non-numeric Parallelization," *Communications of the ACM (CACM),* Vol. 60, No. 12, pp. 87, Dec. 2017.

♦ Andrew Putnam, Adrian Caulfield, Eric Chung, Derek Chiou, Kypros Constantinides, John Demmel, Hadi Esmaeilzadeh, Jeremy Fowers, Gopi PrashanthGopal, Jan Gray, Michael Haselman, Scott Hauck, Stephen Heil, Amir Hormati, Joo-Young Kim, Sitaram Lanka, James Larus, Eric Peterson, Simon Pope, Aaron Smith, Jason Thong, Phillip Yi Xiao, Doug Burger, "A Reconfigurable Fabric for Accelerating Large-Scale Datacenter Services," *Communications of the ACM (CACM,* Vol. 59, No. 11, pp. 10–22, Nov. 2016.

♦ James Larus, "The Power of Parallelizing Computations," *Communications of the ACM (CACM),* Vol. 59, No. 10, pp. 84–84, Oct. 2015.

♦ Andrew Putnam, Adrian Caulfield, Eric Chung, Derek Chiou, Kypros Constantinides, John Demmel, Hadi Esmaeilzadeh, Jeremy Fowers, Gopi PrashanthGopal, Jan Gray, Michael Haselman, Scott Hauck, Stephen Heil, Amir Hormati, Joo-Young Kim, Sitaram Lanka, James Larus, Eric Peterson, Simon Pope,

Aaron Smith, Jason Thong, Phillip Yi Xiao, Doug Burger, "A Reconfigurable Fabric for Accelerating Large-Scale Datacenter Services," *IEEE Micro,* Vol. 35, No. 3, pp. 10-22, May/Jun. 2015.

♦ James Larus, "Programming Multicore Computers: Technical Perspective," *Communications of the ACM (CACM),* Vol. 58, No. 5, pp. 76–76, May 2015.

♦ Daniel Reed, Dennis Gannon, James Larus, "Imaging the Future: Thoughts on Computing," *IEEE Computer*, Vol. 45, No. 1, pp. 25–30, Jan. 2012.

♦ Yi Lu, Qiaomin Xie, Gabriel Kliot, Alan Geller, James Larus, Albert Greenberg, "Join-Idle-Queue: A Novel Load Balancing Algorithm for Dynamically Scalable Web Services," *Performance Evaluation,* Vol. 68, No. 11, pp. 1056–1071, Nov. 2011.

♦ James Larus, Galen Hunt, "The Singularity System," *Communications of the ACM (CACM),* Vol. 53, No. 8, pp. 72–79, Aug. 2010.

♦ James Larus, "Spending Moore's Dividend," *Communications of the ACM (CACM)*, Vol. 52, No. 5, pp. 62–69, May 2009.

♦ James Larus, "PL Research and Its Consequences on PL Curriculum," *SIGPLAN Notices*, Vol. 43, No. 11, pp. 84–86, Nov. 2008.

♦ James Larus, Christos Kozyrakis, "Transactional Memory," *Communications of the ACM (CACM)*, Vol. 51, No. 7, pp. 80–88, Jul. 2008.

♦ Galen Hunt, James Larus, "Singularity: Rethinking the Software Stack," *Operating Systems Review,* Vol. 41, No. 2, pp. 37–49, Apr. 2007.

♦ James Larus, Galen Hunt, and David Tarditi, "Singularity," *MSDN Magazine*, Vol. 21, No. 7, pp. 176, Jun. 2006.

♦ Herb Sutter, James Larus, "Software and the Concurrency Revolution," *ACM Queue,* Vol. 3, No. 7, pp. 54–62, Sept. 2005.

♦ James Larus, Thomas Ball, Manuvir Das, Rob DeLine, Manuel Fähndrich, Jon Pincus, Sriram Rajamani, Ramanathan Venkatapathy, "Righting Software," *IEEE Software*, Vol. 21, No. 3, pp. 92–100, May/Jun. 2004. ►*IEEE Software 25th-Anniversary Top Picks.*

♦ Trishul Chilimbi, Mark Hill, and James Larus, "Making Pointer-Based Data Structures Cache Conscious," *IEEE Computer*, Vol. 33, Num. 12, pp. 67–74, Dec. 2000.

♦ Shubhendu Mukherjee, Steven Reinhardt, Babak Falsafi, Mike Litzkow, Mark Hill, David Wood, Steven Huss-Lederman, and James Larus, "Wisconsin Wind Tunnel II: A Fast, Portable Parallel Architecture Simulator," *IEEE Concurrency*, Vol. 8, No. 4, pp. 12–20, Oct. 2000.

♦ Thomas Ball, James Larus, "Using Paths to Measure, Explain, and Enhance Program Behavior," *IEEE Computer*, Vol. 33, No. 7, pp. 57–65, Jul. 2000.

♦ Satish Chandra, James Larus, Bradley Richards, "Teapot: A Domain-Specific Language for Writing Cache Coherence Protocols," *IEEE Transactions on Software Engineering*, Vol. 25, No. 3, pp. 317–334, May/Jun. 1999.

♦ Mark Hill, James Larus, and David Wood, "Portably Supporting Parallel Programming Languages," *IEEE Computer*, Vol. 28, No. 8, pp. 28–29, Aug. 1995.

♦ David Wood, Satish Chandra, Babak Falsafi, Mark Hill, James Larus, Alvin Lebeck, James Lewis, Shubhendu Mukherjee, Subbarao Palacharla, Steven Reinhardt, "Mechanisms for Cooperative Shared Memory," *CMG Transactions*, Issue 84, pp. 51–62, Spring 1994.

♦ Thomas Ball and James Larus, "Optimally Profiling and Tracing Programs," *ACM Transactions on Programming Languages and Systems (TOPLAS)*, Vol. 16, No. 4, pp. 1319–1360, Jul. 1994.

♦ James Larus and Thomas Ball, "Rewriting Executable Files to Measure Program Behavior," *Software Practice & Experience*, Vol. 24, No. 2, pp. 197–218, Feb. 1994.

♦ James Larus, "Compiling for Shared-Memory and Message-Passing Computers," *ACM Letters on Programming Languages and Systems*, Vol. 2, No. 1–4, pp. 165–180, Mar.–Dec. 1993.

♦ Mark Hill, James Larus, Steven Reinhardt, and David Wood, "Cooperative Shared Memory: Software and Hardware for Scalable Multiprocessors," *ACM Transactions on Computer Systems (TOCS)*, Vol. 11, No. 4, pp. 300–318, Nov. 1993.

♦ James Larus, "Efficient Program Tracing," *IEEE Computer*, Vol. 26, No. 5, pp. 52–61, May 1993.

♦ James Larus, "Loop-Level Parallelism in Numeric and Symbolic Programs," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 4, No. 7, pp. 812–826, Jul. 1993.

♦ James Larus, "Compiling Lisp Programs for Parallel Execution," *Lisp and Symbolic Computation*, Vol. 4, No. 1, pp. 29–99, Jan. 1991.

♦ James Larus, "Abstract Execution: A Technique for Efficiently Tracing Programs," *Software–Practice & Experience*, Vol. 20, No. 12, pp. 1241–1258, Dec. 1990.

♦ Mark Hill and James Larus, "Cache Considerations for Programmers of Multiprocessors," *Communications of the ACM*, Vol. 18, No. 8, pp. 97–102, Aug. 1990.

♦ Benjamin Zorn, Kinson Ho, James Larus, Luigi Semenzato, and Paul Hilfinger, "Multiprocessing Extensions in SPUR Lisp," *IEEE Software*, pp. 41–49, Jul. 1989.

♦ Mark Hill, Susan Eggers, James Larus, et al., "Design Decisions in SPUR," IEEE *Computer*, Vol. 18, No. 11, pp. 8–24, Nov. 1986.

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KEYNOTE TALKS

♦ "Speed and Scale: Compatible with Democracy?," *Digital Days,* WWTF (Vienna Science and Technology Fund), Vienna, Austria, Oct. 2022.

♦ "Protein Clustering: Parallelizing an Expensive, Irregular Computation," *Workshop on Accelerator Architecture in Computational Biology and Bioinformatics (AACBB 2020),* San Diego, CA, Mar. 2020.

♦ "Is AI Different?" *An Insightful Farewell to the Dean's Team,* TU Wein, Vienna, Austria, Dec. 2019.

♦ "Caches Are Not Your Friend: Programming Non-Volatile Memory," *SYSTOR 2019,* Haifa Israel, Jun. 2019.

♦ "It's the End of the World as We Know It," *HiPEAC 2015,* Amsterdam, Netherlands, Jan. 2015.

♦ — *Compiler Architecture and Tools 2014,* Haifa, Israel, Dec. 2014.

♦ "Look Up! Your Future is in the Cloud," *Programming Language Design and Implementation (PLDI 2013)*, Seattle, WA, Jun. 2013.

♦ "It's the End of the World as We Know It (And I Feel Fine)," *Middleware 2012,* Montreal, Canada, Dec. 2012.

♦ — *Runtime Verification 2012 (RV 12),* Istanbul, Turkey, Sept. 2012.

♦ — *Swedish Multicore Day*, Stockholm, Sweden, Sept. 2012.

♦ "The Cloud Will Change Everything," *EcoCloud Opening*, EPFL, Lausanne, Switzerland, May 2011.

♦ — *Architectural Support for Programming Languages and Operating Systems (ASPLOS 2011)*, Mar. 2011.

♦ "Programming the Cloud," *High-Performance Computer Architecture (HPCA) and Principles and Practice of Parallel Programming (PPoPP)*, Feb. 2011.

♦ "Programming Clouds," *Compiler Construction (CC 2010),* Paphos, Cyprus, Mar. 2010.

♦ "Multicore and Cloud Computing – Time to Start Afresh," *High Confidence Software and Systems*, Baltimore, MD, May 2009.

♦ "The Real Value of Testing," *International Symposium on Software Testing and Analysis (ISSTA 2008),* Seattle, WA, Jul. 2008.

♦ "Is Architecture the Solution?" *First Workshop on Architectural and System Support for Improving Software Dependability (ASID)*, San Jose, CA, Oct. 2006.

♦ "Abolish Runtime Systems: The Operating System Should Control the Execution Environment," *2nd Virtual Execution Environments (VEE 2006)*, Ottawa, Canada, Jun. 2006.

♦ "Building Dependable Software," *I&C Research Day*, EPFL, Jun. 2005.

♦ — *Architectural Support for Programming Languages and Operating Systems (ASPLOS-XI)*, Boston, MA, Oct. 2004.

♦ "Righting Software: Tools to Improve Software Development," *Third Annual Southeastern Software Engineering Conference*, Huntsville AL, Mar. 2004.

♦ "Why Write Real Software (in a University)?," *3rd Annual Workshop on Computer Architecture Education (WCAE3)*, San Antonio, Texas, Feb. 1997.

DISTINGUISHED LECTURES

♦ "Programming NVM," IST/INESC-ID Distinguished Lecture, IST, Lisbon, Portugal, Oct. 2019.

♦ — Informatics Colloquium, Sorbonne University, Paris, France, Oct. 2018.

♦ "It's the End of the World as We Know It (And I Feel Fine)," University of Chicago, Oct. 2015.

♦ "Look Up! Your Future is in the Cloud," Distinguished Lecture, Cray Distinguished Speaker Series, University of Minnesota, Minneapolis, MN, Feb. 2014.

♦ "Programming the Cloud," *Gerard Salton Memorial Lecture*, Cornell University, Nov. 2010.

♦ "Spending Moore's Dividend," Distinguished Lecture, University of California at Davis, May 2009.

♦ — Distinguished Lecture, Texas A&M University, Feb. 2009.

♦ "The Real Value of Testing," Distinguished Lecture, Information Trust Institute, University of Illinois at Urbana Champagne, Jan. 2009.

♦ "Singularity: Rethinking the Software Stack," Distinguished Lecture, University of Pennsylvania, Nov. 2006.

♦ "Singularity Overview," Distinguished Lecture, University of Illinois at Urbana Champagne, Jan. 2006.

♦ — Distinguished Colloquium, University of California at Berkeley, Nov. 2005.

♦ "Building Dependable Software," Distinguished Lecture, Rice University, Oct. 2004.

♦ "Righting Software: Tools to Improve Software Development," Distinguished Colloquium, University of Maryland, Nov. 2003.

♦ "A New Generation of Systematic Programming Tools," Distinguished Lecturer, University of Pittsburgh, Oct. 2002.

♦ — Distinguished Lecture, University of California, Berkeley, Mar. 2002.

INVITED TALKS

♦ "Computation is changing; Programming must change as well!," Huawei Software Engineering Strategy Workshop, Singapore, Nov. 2022.

♦ "Regulating Artificial Intelligence? Reflecting on Several International Recommendations," *Vienna Workshop on Digital Humanism*, Vienna Austria, Apr. 2019.

♦ "Programming NVM," *SPLASH-I at SPLASH 2018*, Boston, MA, Nov. 2018.

♦ "Computational Thinking is for Everyone," *Informatics Europe Pre-Summit Workshop for Deans and Department Heads*, Lisbon, Oct. 2017.

♦ "Tom Was Right: Integration is Hard," *Tom (Reps) at 60*, at SAS 2016, Edinburgh, Sept. 2016.

♦ "Catapult the Masses," *Workshop on Reconfigurable Computing for the Masses, Really?* FPL 2015, London, Sept. 2015.

♦ "What Happened to the Promise of Software Tools?," *Software Correctness and Reliability Workshop*, ETH Zurich, Oct. 2014.

♦ "Tune, Rewrite, Reinvent," *Microsoft Research Faculty Summit Workshop: Approaching the End of Moore's Law: Time to Reinvent the System Stack?* Microsoft Research, Jul. 2014.

♦ "Tech Transfer of Software Tools," *High Confidence Software and Systems (HCSS)*, May 2012.

♦ "It's the End of the World as We Know It (And I Feel Fine)," *DARPA/ISAT Workshop: Advancing Computer Systems without Technology Progress*, Mar. 2012.

♦ "Orleans: Cloud Programming for Everyone," *Barcelona Multicore Workshop*, Nov. 2011.

♦ "The Cloud Will Change Everything," *Microsoft Research Cloud Futures Workshop*, Jun. 2011.

♦ — AMD, Apr. 2011.

♦ "Cloud Programming," *Microsoft Faculty Summit*, Jul. 2010.

♦ — *16th Monterey Workshop on Modeling, Development, and Verification of Adaptive Computer Systems*, Apr. 2010.

♦ "Should We Fear Concurrency?," *Workshop on Advancing Computer Architecture Research (ACAR)*, Feb. 2010.

♦ "Programming Clouds," *First Mysore-Park Workshop on Building and Programming the Cloud*, Mysore India, Jan. 2010.

♦ "Hardware Can Make Data Center Software Simpler and More Robust," *Workshop on Architectural Concerns in Large Datacenters*, ISCA 2009, Austin, TX, Jun. 2009.

♦ "Singularity: Designing Better Software," *Computer-Aided Verification (CAV 08)*, Princeton NJ, Jul. 2008.

♦ "Spending Moore's Dividend," *Workshop on Exploiting Concurrency: Efficiency and Correctness (EC^2)*, at CAV 2008, Princeton NJ, Jul. 2008.

♦ "It is the Software, Stupid," *Presentation to the Computer Science Technical Board panel on Sustaining Growth in Computing Performance*, San Jose, CA, Dec. 2007.

♦ "Challenges in Compiler Technology for Software Reliability and Productivity," *Workshop on Future Directions for Compiler Research and Education*, Feb. 2007.

♦ "Can Architecture Enhance Verifiability? The Singularity Project at Microsoft Research," *7th Verification, Model Checking and Abstract Interpretation*, Charleston, SC, Jan. 2006.

♦ "Building Dependable Software," *Microsoft Academic Days,* Silicon Valley, San Jose, CA, Oct. 2004.

♦ "Software Matters," *Presentation to the Computer Science Technical Board panel on Certifiably Dependable Software*, Washington DC, Oct. 2004.

♦ "Righting Software: Tools to Improve Software Development," *German American Frontiers of Engineering Symposium*, National Academy of Engineering, Apr. 2004.

♦ "Righting Software: Tools to Improve Software Development," *Microsoft Faculty Summit & Microsoft European Faculty Summit*, Jul. 2003.

♦ "Programs Follow Paths," *IEEE Conference on Computer Languages (ICCL 1998)*, May 1998.

♦ "Introduction to Java," *WILS World 1997 Conference*, Madison WI, May 1997.

♦ "A Case for Custom Coherence Protocols," *IBM Research 50th Anniversary Symposium on Parallel Computing*, IBM Tokyo Research Laboratory, Tokyo Japan, Mar. 1996.

♦ "Tempest: A Substrate for Portable Parallel Programs," Plenary talk, *17th Boundary Elements (BEM 17)*, Madison, WI, Jul. 1995.

♦ "LCM: Memory System Support for Parallel Language Implementation," *Parallel Object-Oriented Methods & Applications (POOMA)*, Santa Fe, New Mexico, Dec. 1994.

♦ "Compiling for Shared-Memory and Message-Passing Computers," *DIMACS Workshop on Models, Architectures, and Technologies for Parallel Computation*, Rutgers University, Sept. 1993.

♦ "CICO: A Practical Shared-Memory Programming Performance Model," *Workshop on Portability and Performance for Parallel Processing*, Southampton, England, Jul. 1993.

♦ "Compilers: Catching Up with Computer Architecture," *IBM Rochester*, Jun. 1993.

♦ "C**: A Large-Grain, Object-Oriented, Data-Parallel Programming Language," *Fifth Workshop on Languages and Compilers for Parallel Computers*, New Haven CT, Aug. 1992.

♦ "Parallelism in Numeric and Symbolic Programs," *Workshop on Compilers for Parallel Machines*, Paris, France, Dec. 1990.

♦ — *Third Workshop on Languages and Compilers for Parallel Computers*, Irvine, CA, Aug. 1990.

♦ — *Workshop on Parallelization in the Presence of Pointers*, Leesburg, VA, Mar. 1990.

♦ "Parallel Lisp for SPUR," *Asilomar Microcomputer Workshop*, Asilomar, CA, 1985.

PRESENTATIONS AT SYMPOSIA, WORKSHOPS, AND TUTORIALS

♦ "Why AI?," Meeting on Precision Global Health, Rockefeller Foundation Bellagio Italy, Nov. 2017.

♦ Panelist, "It's time: academic systems venues should require authors to make their code and data publicly available; those that do not will be held to a higher standard," *ASPLOS 2015*, Istanbul Turkey, Mar. 2015.

♦ Panelist, "Discussion on industry vs. government funding for data center research," *Workshop on Exascale Evaluation and Research Techniques (EXERT)*, at ASPLOS 2011, Santa Anna, CA Mar. 2011.

♦ Debater, "There is a free lunch: you can have strong parallel safety guarantees with little programmer effort," *Workshop on Deterministic Multiprocessing and Parallel Programming*, University of Washington, Nov. 2009.

♦ Panelist, "Teach Parallel Panel," *Supercomputing 2009,* Portland, OR, Nov. 2009.

♦ Panelist, "Cloud Computing Challenges and Realities," *5th Workshop on the Interaction between Operating System and Computer Architecture (WIOSCA 09)*, at ISCA 2009, Austin, TX, Jun. 2009.

♦ Panelist, "Memory Systems Panel*,*" *Workshop on Memory Systems Performance and Correctness*, ASPLOS 2008, Seattle, WA, Mar. 2008.

♦ "Reconsidering Transactional Memory," *Dagstuhl Seminar*, Sept. 2007.

♦ Panelist, "Corezilla: Build and Tame the Multicore Beast," *44th Design Automation Conference (DAC),* Jun. 2007.

♦ "What do Bell Bottoms, Peace Signs, and Computer Architecture Have in Common?," Wild and Crazy Idea Session, *Architectural Support for Programming Languages and Operating Systems (ASPLOS XII),* San Jose, CA, Oct. 2006.

♦ "Software Challenges in Nanoscale Technologies," *CRA Workshop on Grand Challenges in Architecture*, Dec. 2005.

♦ "It's the Software, Stupid," *Workshop on Transactional Memory*, Apr. 2005.

♦ "The End of Compiler Research," *Dagstuhl Vision Seminar*, Aug. 2003.

♦ "Cache-Conscious Compilation: Can Compilers Hack It?," *Dagstuhl Seminar*, Sept. 2000.

♦ Tutorial: "Parallel Programming Languages," *Programming Language Design and Implementation (PLDI 1993)*, Jun. 1993.

♦ Panelist: "SPUR Retrospective," *ONR/NSF/DARPA Workshop on Research in Experimental Computer Science*, Oct. 1991.

♦ Tutorial: "Parallel Lisp," *Programming Language Design and Implementation (PLDI 1991)*, Jun. 1991.

♦ Panelist: "Problems and Issues in Parallel C Programming," *Principles and Practice of Parallel Programming (PPoPP 1991)*, Apr. 1991.

LECTURES AT UNIVERSITIES AND RESEARCH INSTITUTES

♦ "It's the End of the World as We Know It (And I Feel Fine)," IBM Research Zurich, Sept. 2015.

♦ "What Happened to the Promise of Software Tools?," UC Berkeley, Nov. 2014.

♦ "Technology Trends and Research Opportunities," ETH Zurich, May 2014.

♦ "Orleans: Cloud Programming for Everyone," IBM Research, Mar. 2013.

♦ "It's the End of the World as We Know It (And I Feel Fine)," EPFL, Lausanne, Switzerland, Sept. 2012.

♦ "The Cloud Will Change Everything," University of California, Riverside, Apr. 2012.

♦ "Orleans: Cloud Computing for the Masses," Bell Laboratories, Sept. 2011.

♦ — Harvard University, Sept. 2011.

♦ "Orleans: A Platform for Cloud Computing," Harvard University, Nov. 2009.

♦ "Spending Moore's Dividend," University of Texas, Austin, Feb. 2009.

♦ — Carnegie-Mellon, Apr. 2008.

♦ "Singularity: Rethinking the Software Stack," University of Chicago, Jan. 2008.

♦ — University of Texas at Austin, Nov. 2007.

♦ — Rice University, Mar. 2007.

♦ "Singularity Overview," University of Wisconsin Computer Architecture Colloquia, Nov. 2005.

♦ "Righting Software: Tools to Improve Software Development," École Nationale Supérieure d´Électronique et de Radioélectricité de Bordeaux, Jul. 2003.

♦ "A New Generation of Systematic Programming Tools," Universitat Politècnica de Catalunya, Barcelona, Spain, Oct. 2002.

♦ — University of Wisconsin—Madison, May 2002.

♦ "Using Cohort Scheduling to Enhance Server Performance," Compaq Systems Research Center, Jun. 2001.

♦ — University of Washington, Apr. 2001.

♦ "Enhanced Server Performance with Staged Server," University of California, Berkeley, Oct. 2000.

♦ — University of Wisconsin, Madison, Oct. 2000.

♦ "Whole Program Paths," University of Maryland, Oct. 1999.

♦ — CMU, Mar. 1999.

♦ "Fast Out-of-Order Processor Simulation," University of Washington, Apr. 1998.

♦ "Cache-Conscious Data Structures," University of Washington, Jan. 1998.

♦ "Efficient Path Profiling," Silicon Graphics, May 1997.

♦ — University of California, Berkeley, May 1997.

♦ — Sun Microsystems, Apr. 1997.

♦ — University of California, San Diego, Apr. 1997.

♦ — University of Toronto and IBM Toronto, Mar. 1997.

♦ — Microsoft Research Laboratory, Feb. 1997.

♦ — Hewlett Packard Research Laboratory, Aug. 1996.

♦ "EEL: Machine-Independent Executable Editing," Intel Corporation, Sept. 1996.

♦ — Princeton University, Apr. 1996.

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♦ "Tempest: A Substrate for Portable Parallel Programs," University of Wisconsin-Milwaukee, Nov. 1995.

♦ — University of Washington, Jun. 1995.

♦ — University of Massachusetts, Apr. 1995.

♦ — Harvard University, Apr. 1995.

♦ "Tempest: User-Level Shared Memory," Rice University, Mar. 1994.

♦ — University of Texas, Mar. 1994.

♦ — University of Maryland, Mar. 1994.

♦ "EEL: A Library for Editing Program Executables," AT&T Bell Laboratories, Naperville, Dec. 1993.

♦ "Cooperative Shared Memory and the Wisconsin Wind Tunnel," IBM Hawthorne Research Laboratory, Jul. 1993.

♦ — Los Alamos National Laboratory, Jun. 1993.

♦ — University of California, Santa Barbara, Feb. 1993.

♦ — Duke University, Jan. 1993.

♦ — Washington University, Dec. 1992.

♦ — Princeton University, Dec. 1992.

♦ — Carnegie-Mellon University, Nov. 1992.

♦ — University of Colorado, Sept. 1992.

♦ — University of Washington, Sept. 1992.

♦ "Optimally Profiling and Tracing Programs," Rutgers University, Aug. 1992.

♦ — University of Texas at Austin, Jan. 1992.

♦ — Yale University, Oct. 1991.

♦ — Stanford University, Aug. 1991.

♦ "Parallelism in Numeric and Symbolic Programs," University of California at Berkeley, Aug. 1991.

♦ — AT&T Bell Laboratories, Murray Hill, Aug. 1991.

♦ — Hewlett-Packard Laboratories, Apr. 1991.

♦ — Center for Supercomputing Research and Development, University of Illinois, Nov. 1990.

♦ — MIT, Jun. 1990.

♦ — IBM Hawthorne Research Laboratory, Jun. 1990.

♦ "Restructuring Symbolic Programs for Concurrent Execution on Multiprocessors," University of California at Berkeley, Feb. 1989.

♦ — IBM Hawthorne Research Laboratory, Jul. 1988.

♦ "Restructuring Symbolic Programs for Concurrent Execution on Multiprocessors," (Interview talk) Stanford University, Feb. 1989.

♦ — University of Washington, Mar. 1989.

♦ — Princeton University, Mar. 1989.

♦ — University of Maryland, Mar. 1989.

♦ — MIT, Mar. 1989.

♦ — Yale University, Mar. 1989.

♦ — CMU, Mar. 1989.

♦ — University of Wisconsin-Madison, Apr. 1989.

VIDEOS

♦ Orleans: A Framework for Scalable Client+Cloud Computing, Channel 9 video, Dec. 2010.

♦ Singularity III: Revenge of the SIP, Channel 9 video, Aug. 2006.

♦ Singularity Revisited, Channel 9 video, Dec. 2005.

♦ Singularity: A Research OS Written in C#, Channel 9 video, May 2005.

PODCASTS

♦ James Larus, "Privacy-preserving Covid Tracing and the Hardware-Software Stack with Dr. James Larus, EPFL," *Computer Architecture Podcast*, Jan. 2021.

GRANTS AND AWARDS

♦ Huawei Technologies, 4,880,000 CHF, PI James Larus, EPFL-Huawei Cloud, *Intelligent Cloud Technologies Initiative*, 2020.

♦ Botnar Foundation, 5,000,000 CHF, PI Carmela Troncoso, co-PIs James Larus, Edouard Bugnion, Marcel Salathé, Mathias Payer, Martin Jaggi, Klaus Schönenberger, Srdjan Čapkun, Seda Gürses, Michael Veale, *EPFL Real Time Epidemiology I-DAIR Pathfinder,* 2020.

♦ Sun Microsystems: $100,000 cash grant to Wisconsin Wind Tunnel project, 1998.

♦ Intel $20,860 equipment grant (Wisconsin Wind Tunnel project), 1997.

♦ Sun Microsystems $100,000 cash grant, 1997.

♦ Sun Microsystems $2,450,940 equipment grant (MIDSHIP project), 1997.

♦ Hewlett-Packard $175,337 equipment grant (UW CS), 1997.

♦ IBM $79,605 cash and equipment (IBM Partnership Award), 1997.

♦ Sun Microsystems $100,000 cash grant (Wisconsin Wind Tunnel project), 1996.

♦ Hewlett-Packard $56,268 cash and equipment grant, 1996.

♦ Microsoft $100,000 cash grant (UW CS), 1996.

♦ NSF: $1,208,251 co-PI, Tornado: Fine-Grain Distributed Shared Memory for SMP Clusters, 1996.

♦ NSF: $1,600,000 co-PD, CISE Research Infrastructure grant, *MIDSHIP: Managing Image Data for Scalable High Performance,* 1996.

♦ IBM $1,255,000 equipment grant (Wisconsin Wind Tunnel project), 1995.

♦ Portland Group $90,000 software grant, 1995.

♦ Hewlett-Packard $62,338 cash and equipment grant, 1995.

♦ Sun Microsystems $74,780 Equipment grant (Wisconsin Wind Tunnel project), (1994).

♦ NSF $224,896 co-PI, *Cooperative Shared Memory and the Wisconsin Wind Tunnel (Supplement)*, 1994.

♦ DARPA $2,371,525 co-PI, *Blizzard and Paradyn: Infrastructure and Scalable Tools for Multi-Paradigm Parallel Computers*, 1994.

♦ Digital Equipment Corp. $73,381 *Editing Program Executables*, NYI matching grant, 1993.

♦ DOE $900,000 co-PI, *The Parallel Programmer's Workbench: Programming Tools in Support of the Computational Sciences*, 1993.

♦ NSF $312,500 PI, NSF Young Investigator (NYI) Award. *Programming Massively Parallel Computers,* 1993.

♦ 1993 $39,861 PI, Software Capitalization Grant, *Editing Program Executables,* 1993.

♦ NSF $1,428,308 co-PI, *Cooperative Shared Memory and the Wisconsin Wind Tunnel, 1993.*

♦ Sun Microsystems $18,095 equipment grant, *Tools for Optimal Profiling and Tracing,* 1992.

♦ NASA $21,620 National Fellowship in Parallel Processing (L. Huelsbergen), *Dynamic Program Parallelization,* 1992.

♦ NSF $125,500 PI, *Parallel Symbolic Computation,* 1991.

♦ NSF $2,000,000 Participating Faculty, Departmental Institutional Infrastructure grant, *PRISM-A Laboratory for Research in Future High-Performance Parallel Computing,* 1991.

PHD STUDENTS

♦ Adrian Ghosn, Ph.D. EPFL "Trust as a Programming Primitive," Oct. 2020 (co-supervised by Prof. Edouard Bugnion).

♦ David Aksun, Ph.D. EPFL, "Software Support for Non-Volatile Memory (NVM) Programming," Jul. 2020.

♦ Stuart Byma, Ph.D. EPFL, "Parallel and Scalable Bioinformatics," May 2020.

- Glenn Ammons, PhD Univ. Wisconsin, "Strauss: A Specification Miner," Apr. 2003 (co-supervised by Prof. Ras Bodik).

- Eric Schnarr, Ph.D. Univ. Wisconsin, "[Applying Programming Language Implementation Techniques to Processor Simulation](#)," Dec. 2000 (co-supervised by Prof. Mark Hill).

- Trishul Chilimbi, PhD Univ. Wisconsin, "Cache-Conscious Data Structures," Jun. 1999.

- Satish Chandra, PhD Univ. Wisconsin, "Software Techniques for Customizable Distributed Shared Memory," Oct. 1997 (1998 UW Computer Sciences Graduate Student Research Award)

- Guhan Viswanathan, PhD Univ. Wisconsin, "New Techniques for Compiling Data Parallel Languages," Sept. 1996.

- Brad Richards, PhD Univ. Wisconsin, "Memory Systems for Parallel Programming," Aug. 1996.

- Lorenz Huelsbergen, PhD Univ. Wisconsin, "Dynamic Language Parallelization," Aug. 1993.

MASTER STUDENTS

- Francesco Intoci, "P3LI5: Enabling Practical Privacy-Preserving Lawful Interception on 5G Core with Lattice-Based Weakly-Private Information Retrieval," Apr. 2023.

- Jimmy Damien Johan Vuadens, "Privacy-Preserving Detection of Ransomware in Large-Scale File System," Mar. 2023.

- Bastien Wermeille, "AppSec Lifecycle Assessment," Aug. 2022. ►Prix de Groupe Kudelski de la cryptographie et de la sécurité des systèmes d'information.

- Pablo Pfister, "A domain-specific language for financial time series analysis and derived data computing," Aug. 2021.

- Daniel-Florin Dosaru, "AdePT project: porting particle transport simulation to oneAPI," Aug. 2021.

- Elie Daou, "From a manually operated on-premise CI/CD toolset," Aug. 2021.

- Raja Soufi, "Graph-Based Data Extraction Algorithm," Sept. 2020.

- Charles Parzy-Turlat, "Sampling-based Profiling for GraalVM Native Image," Sept. 2020.

- Thierry Treyer, "Scaling Memoro for Industry Workloads," Jul. 2020.

- Natalija Gucevska, "Historical data error detection and classification," Apr. 2019.

- Ismail Imani, "ESSOP Administration Tool," Aug. 2018.

- Enea Bell, "SITAONAIR Data Integration Platform: Microservices, Configuration Management, Build and Deployment Pipeline," Apr. 2018.

- Alexandros Sympetheros, "Collecting insights from a large codebase to ensure high software quality," Sept. 2017.

- Marc Schär, "SITAONAIR Test Agents," Aug. 2016.

- Laurent Weingart, "Mobile Identity," Apr. 2016.

- Kevin Gilliéron, "Unification of Computer Security Web Services," Apr. 2016.

- Liansheng Hua, "Compile-Time Obfuscation for Code Renewability," Aug. 2015.

WIDELY DISTRIBUTED SOFTWARE

♦ PP—A path profiling tool.

♦ EEL—An executable editing library.

♦ QP/QPT—A program profiler and tracing system that uses the Ball & Larus's optimal profiling algorithm.

♦ SPIM—An instruction-level simulator for the MIPS R2000.

♦ AE—A compiler-based program tracing system.

♦ mh-e—A mail system front-end for GNU emacs.

CIVIC SERVICE

♦ Lakeside School Parent Technology Advisory Committee, 2003 –2010.

♦ Search committee, Islander Middle School Principal, Mercer Island School District, Apr. 2001.