KC Sivaramakrishnan

http://kcsrk.info

Education

- PhD, Computer Science, Purdue University, USA, May 2011 Dec 2014
 Thesis title: "Functional Programming Abstractions for Weakly Consistent Systems"
 Advisor: Prof. Suresh Jagannathan
- Master of Science, Computer Science, Purdue University, USA, May 2008 May 2011
- Bachelor of Engineering, Computer Science and Engineering, Anna University, India, Aug 2004 May 2008

Experience

- Research Fellow, Royal Commission for the Exhibition of 1851, Oct 2015 Present
- Research Fellow, Darwin College, Cambridge, Oct 2015 Present
- Research Associate, Computer Laboratory, University of Cambridge, Dec 2014 Present
- Research Assistant, Purdue University, Aug 2008 Dec 2014
- Research Intern, Microsoft Research, Cambridge, Feb 2012 May 2012
- Research Intern, Samsung Research America, May 2010 Aug 2010

Awards and Recognitions

- **Research Fellowship**, Royal Commission for the Exhibition of 1851, 2015–2018, £102,000.
- **Research Fellowship**, Darwin College, Cambridge, 2015–2018, £900.
- **Maurice H. Halstead Memorial Award** for outstanding research in Software Engineering, Purdue University, 2014, \$4,000.
- **Best paper award** at Many-core Architecture Research Symposium at RWTH-Aachen, 2012, \$1,000.
- **Invited paper** in Science of Computer Programming, Vol. 78, Iss. 2 (Feb 2013).
- Glasgow Haskell Compiler (GHC) Committer.
- SIGPLAN PAC travel grant for PLDI 2012 and POPL 2014, \$1,500 each.
- NSF travel grant for ICFP 2013, \$2,000.

Service

- Organizer, Dagstuhl Seminar on "Algebraic Effect Handlers go Mainstream", Apr 2018.
- **Convener**, Darwin College Science Seminar, Oct 2015 Present.
- Program Committee member: PMLDC@ECOOP 2017, Off-the-beaten track (OBT) 2017, OCaml Workshop 2016, SPLASH-MARC symposium, 2013
- Artifact Evaluation Committee member: PLDI 2015, PPoPP/CGO 2016.
- **Reviewer**: ECOOP, TODS, JFP, POPL, ICFP, ASPLOS, TLDI, Concurrency and Computation: Practice and Experience, Software: Practice and Experience.

Journal Publications

- 1. **KC Sivaramakrishnan**, Tim Harris, Simon Marlow, Simon Peyton Jones, "*Composable Scheduler Activations for Haskell*", Journal of Functional Programming (JFP), Jun 2016
- 2. **KC Sivaramakrishnan**, Gowtham Kaki, Suresh Jagannathan, "*Representation without Taxation:* A Uniform, Low-Overhead, and High-Level Interface to Eventually Consistent Key-Value Stores", IEEE Data Engineering Bulletin, 39(1): 52 64, Mar 2016

- 3. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, "*MultiMLton: A Multicore-aware Runtime for Standard ML*", Journal of Functional Programming (JFP), Nov 2014
- 4. **KC Sivaramakrishnan**, Mohammad Qudeisat, Lukasz Ziarek, Karthik Nagaraj, Patrick Eugster, "*Efficient Sessions*", Science of Computer Programming (SCP), 78(2): 147 167, Feb 2013

Conference Publications

- 1. Daniel Hillerström, Sam Lindley, Robert Atkey, **KC Sivaramakrishnan**, "*Continuation Passing Style for Effect Handlers*", International Conference on Formal Structures for Computation and Deduction (FSCD), 2017
- 2. Gowtham Kaki, **KC Sivaramakrishnan**, Thomas Gazagnaire, Anil Madhavapeddy, Suresh Jagannathan, "*DaLi: Database as a Library*", The 2nd Annual Summit on Advances in Programming Languages (SNAPL), 2017 (Oral Presentation)
- 3. **KC Sivaramakrishnan**, Gowtham Kaki, Suresh Jagannathan, "*Declarative Programming over Eventually Consistent Data Stores*", International Conference on Programming Language Design and Implementation (PLDI), 2015
- 4. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, "*Rx-CML*: A Prescription for Safely Relaxing Synchrony", Symposium on Practical Aspects of Declarative Languages (PADL), 2014
- 5. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, "A Coherent and Managed Runtime for ML on the SCC", Many-core Architecture Research Community Symposium (MARC), 2012
- 6. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, "Eliminating Read Barriers through Procrastination and Cleanliness", International Symposium on Memory Management (ISMM), 2012
- 7. Lukasz Ziarek, **KC Sivaramakrishnan**, Suresh Jagannathan, "Composable Asynchronous Events", International Conference on Programming Language Design and Implementation (PLDI), 2011
- 8. **KC Sivaramakrishnan**, Karthik Nagaraj, Lukasz Ziarek, Patrick Eugster, "Efficient Session Type Guided Distributed Interaction", International Conference on Coordination Models and Languages (COORDINATION), 2010
- 9. Lukasz Ziarek, **KC Sivaramakrishnan**, Suresh Jagannathan, "*Partial Memoization of Concurrency and Communication*", International Conference on Functional Programming (ICFP), 2009

Selected Workshop Publications

- 1. Stephen Dolan, **KC Sivaramakrishnan**, "A Memory Model for Multicore OCaml", OCaml Workshop, Sep 2017
- 2. Gowtham Kaki, **KC Sivaramakrishnan**, Samodya Abeysiriwardane, Suresh Jagannathan, "*Mergeable Types*", ML Workshop, Sep 2017
- 3. Stephen Dolan, Spiros Eliopolous, Daniel Hillerström, Anil Madhavapeddy, **KC Sivaramakrishnan**, Leo White, "*Effectively Tackling the Awkward Squad*", Symposium on Trends in Functional Programming, Jun 2017
- 4. Oleg Kiselyov, KC Sivaramakrishnan, "Eff directly in OCaml", ML Workshop, Sep 2016
- 5. Stephen Dolan, Leo White, **KC Sivaramakrishnan**, Jeremy Yallop and Anil Madhavapeddy, "Effective Concurrency with Algebraic Effects", OCaml Worshop, 2015