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HEATHER MILLER

Citizenship

USA

Research Interests

Programming language design and implementation for distributed programming. I'm interested in using type systems to facilitate the design of new, functional distributed systems.

Education

EPFL, *Lausanne, Switzerland* — *2009 –*
Ph.D. in Computer Science
Advisor: Martin Odersky — *2011 –*

University of Miami, *Coral Gables, FL* — *2006 – 2009*
BSEE in Electrical Engineering, Audio Engineering, *with honors, May 2009*

Cooper Union for the Advancement of Science and Art, *New York, NY* — *2004 – 2006*

Service

Committees: Scala 2014 (co-chair), Scala 2013 (co-chair)

Reviewer for: ECOOP 2013

Publications

Functional Programming For All! Scaling a MOOC for Students And Professionals Alike — *ICSE 2014*
Heather Miller, Philipp Haller, Lukas Rytz, Martin Odersky
ACM SIGSOFT International Conference on Software Engineering

RAY: Integrating Rx and Async for Direct-Style Reactive Streams — *REM 2013*
Philipp Haller, Heather Miller
Workshop on Reactivity, Events and Modularity

Instant Pickles: Generating Object-Oriented Pickler Combinators for Fast and Extensible Serialization — *OOPSLA 2013*
Heather Miller, Philipp Haller, Eugene Burmako, Martin Odersky
ACM SIGPLAN Conference on Object Oriented Programming, Systems, Languages and Applications

FlowPools: A Lock-Free Deterministic Concurrent Dataflow Abstraction — *LCPC 2012*
Aleksandar Prokopec, Heather Miller, Tobias Schlatter,
Philipp Haller, Martin Odersky
International Workshop on Languages and Compilers for Parallel Computing

Tools and Frameworks for Big Learning in Scala: Leveraging the Language for High Productivity and Performance *BigLearn 2011*
Heather Miller, Philipp Haller, Martin Odersky
NIPS Workshop on Parallel and Large-Scale Machine Learning

Parallelizing Machine Learning – Functionally: A Framework and Abstractions for Parallel Graph Processing *Scala 2011*
Philipp Haller, Heather Miller
Scala Workshop

Awards

US National Science Foundation Graduate Research Fellowship *(2009)*	*2011–2014*
EPFL Outstanding Teaching Award	*2012*
EPFL Computer Science Fellowship	*2009 – 2010*
Most Outstanding Audio Engineering Student, University of Miami	*2009*
Most Outstanding Eta Kappa Nu Student, University of Miami	*2009*
Information Technology Scholarship, University of Miami	*2006-2009*
John Farina Family Scholarship, University of Miami	*2006-2009*
Eta Kappa Nu	*2008*
Tau Beta Pi	*2008*
SMART US Department of Defense Scholarship Alternate	*2007*
Cooper Union Full Tuition Scholarship	*2004 – 2006*

Teaching Experience

Lead Teaching Assistant, *Functional Programming Principles in Scala* *2012 –*
Popular Coursera MOOC on functional programming in Scala
Role: One of the lead

Lead Teaching Assistant, *Programming Principles* *2012*
Undergraduate course on introductory functional and logic programming