

MICHAEL DELORIMIER, PH.D.

2119 22nd St., San Francisco CA 94107 • 320-616-1612 • michael@delorimier.org • www.delorimier.org

OBJECTIVE

I wish to design and implement parallel programs, systems and programming models.

EDUCATION

- **Ph.D. in Computer Science**, California Institute of Technology, GPA 3.4 2006 - 2012
- **M.S. in Computer Science**, California Institute of Technology, GPA 3.4 2002 - 2005
- **B.S. in Electrical Engineering and Computer Science**, UC Berkeley, GPA 3.5 1998 - 2002

SKILLS/DOMAIN EXPERIENCE

- **Algorithm** design, analysis and implementation, including **parallel algorithms**
- **Compiler** design and implementation
- **Data analysis**, presentation and visualization
- **Program tuning** and optimization
- **FPGA** logic architecture design, system design, and embedded system programming
- **Big Data/Data Analytics** systems programming, performance analysis
- Experience programming with OCaml, C, C++, Java, SQL, Verilog, Haskell, Scala, Lisp, Matlab

WORK EXPERIENCE

- Hardware-Software Codesign, Oracle Labs, Principal Member of Technical Staff 2013-now
- Architecture Evaluation, Velogix 2005
- Numerical Linear Algebra Library Implementation, Bebop Group at UC Berkeley 2001
- Multimedia and Webpage Design, Process 39 1998

PUBLICATIONS

- Ph.D. Thesis: **GRaph Parallel Actor Language — A Programming Language for Parallel Graph Algorithms**, 2012
- Master's Thesis: **Floating-point sparse matrix-vector multiply for FPGAs**, 2005
- Michael deLorimier, Nachiket Kapre, Nikil Mehta, and André DeHon. **Spatial hardware implementation for sparse graph algorithms in GraphStep**. In Transactions on Autonomous and Adaptive Systems, 2011
- Michael deLorimier, Nachiket Kapre, Nikil Mehta, Dominic Rizzo, Ian Eslick, Raphael Rubin, Tomas Uribe, Thomas F. Knight, Jr. and André DeHon. **GraphStep: A System Architecture for Sparse-Graph Algorithms**. In Field-Programmable Custom Computing Machines, 2006
- Nachiket Kapre, Nikil Mehta, Michael deLorimier, Raphael Rubin, Henry Barnor, Michael J. Wilson, Michael Wrighton, and André DeHon. **Packet-Switched vs. Time-Multiplexed FPGA Overlay Networks**. In Field-Programmable Custom Computing Machines, 2006
- Michael deLorimier and André DeHon. **Floating-Point Sparse Matrix-Vector Multiply for FPGAs**. In Field Programmable Gate Arrays, 2005
- André DeHon, Joshua Adams, Michael DeLorimier, Nachiket Kapre, Yuki Matsuda, Helia Naeimi, Michael Vanier, and Michael Wrighton. **Design Patterns for Reconfigurable Computing**. In Field-Programmable Custom Computing Machines, 2004