



*Teaching fellow, CS51: Introduction to computer science II*  
**Harvard University**, Cambridge, Massachusetts USA  
*Teaching fellow, CS50: Introduction to computer science I*

**Spring 2011**

**Fall 2010**

THESIS & JOURNAL *Adding Approximate Counters*

PUBLICATIONS Guy L. Steele Jr., Jean-Baptiste Tristan  
In **TOPC'17**: ACM Transaction on Parallel Computing, 2017.

*Formal Verification of Translation Validators*  
Jean-Baptiste Tristan  
Ph.D. dissertation

CONFERENCE  
PUBLICATIONS

*Gradient-based Inference for Networks with Output Constraints*  
Jay-Yoon Lee, Sanket Mehta, Michael L. Wick, Jean-Baptiste Tristan, Jaime Carbonell.  
In **AAAI'19**: Thirty-Third AAAI Conference on Artificial Intelligence, 2019.

*Flexible Compilation of Probabilistic Programs*  
Daniel Huang, Jean-Baptiste Tristan, Greg Morrisett.  
In **PLDI'17**: ACM SIGPLAN Conference on Programming Language Design and Implementation, 2017.

*Using Butterfly-Patterned Partial Sums to Optimize GPU Memory Accesses for Drawing from Discrete Distributions*  
Guy Steele, Jean-Baptiste Tristan.  
In **PPOPP'17**: ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming, 2017.

*Exponential Stochastic Cellular Automata for Massively Parallel Inference*  
Manzil Zaheer, Michael Wick, Jean-Baptiste Tristan, Alex Smola, Guy Steele.  
In **AISTATS'16**: International Conference on Artificial Intelligence and Statistics, 2016.

*Adding approximate counters*  
Guy Steele, Jean-Baptiste Tristan.  
In **PPOPP'16**: ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming, 2016.

*Efficient Training of LDA on a GPU by Mean-for-Mode Estimation*  
Jean-Baptiste Tristan, Joseph Tassarotti, Guy Steele.  
In **ICML'15**: International Conference on Machine Learning, 2015.

*Augur: Data-Parallel Probabilistic Modeling*  
Jean-Baptiste Tristan, Daniel Huang, Joseph Tassarotti, Adam Pockock, Stephen J. Green, Guy Steele.  
In **NIPS'14**: Annual Conference on Neural Information Processing Systems, 2014. **Spotlight**

*Parallel programming with big operators*  
Changhee Park, Guy Steele, Jean-Baptiste Tristan.  
In **PPOPP'13**: ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming, 2013.

*RockSalt: Better, Faster, Stronger SFI for the x86*  
Greg Morrisett, Gang Tan, Joseph Tassarotti, Jean-Baptiste Tristan, Edward Gan.

In **PLDI '12**: ACM SIGPLAN Conference on Programming Language Design and Implementation, 2012.

*Evaluating Value-Graph Translation Validation for LLVM*

Jean-Baptiste Tristan, Paul Govereau, Greg Morrisett.

In **PLDI '11**: ACM SIGPLAN Conference on Programming Language Design and Implementation, 2011.

*A simple, verified validator for software pipelining*

Jean-Baptiste Tristan, Xavier Leroy.

In **POPL '10**: ACM SIGACT-SIGPLAN Symposium on Principles of Programming Languages, 2010.

*Verified Validation of Lazy Code Motion*

Jean-Baptiste Tristan, Xavier Leroy.

In **PLDI '09**: ACM SIGPLAN Conference on Programming Language Design and Implementation, 2009.

*Formal verification of translation validators: A case study on instruction scheduling optimizations*

Jean-Baptiste Tristan, Xavier Leroy.

In **POPL '08**: ACM SIGACT-SIGPLAN Symposium on Principles of Programming Languages, 2008.

WORKSHOP  
PUBLICATIONS

*Enforcing Output Constraints via SGD: A Step Towards Neural Lagrangian Relaxation*

Jay-Yoon Lee, Michael L. Wick, Jean-Baptiste Tristan, Jaime Carbonell

In **AKBC'17**: Workshop on Automated Knowledge Base Construction, 2017.

*Sketchy LDA: Towards Streaming Inference*

Jean-Baptiste Tristan, Michael L. Wick, Joseph Tassarotti

In **ML Systems'17**: Workshop on ML Systems, 2017.

*Comparing Gibbs, EM and SEM for MAP Inference in Mixture Models*

Manzil Zaheer, Michael Wick, Satwik Kottur, Jean-Baptiste Tristan.

In **OPT'15**: Optimization for Machine Learning, 2015.

*Exponential Stochastic Cellular Automata for Massively Parallel Inference*

Manzil Zaheer, Michael Wick, Jean-Baptiste Tristan, Alex Smola, Guy Steele.

In **LearningSys'15**: Workshop on Machine Learning Systems, 2015. **Spotlight**.

ACADEMIC SERVICE *Program Committee*: HOPL 4 PC member, PLDI'18 PC member, PPS'18 PC member, IBM PL day 2016 PC member, SNAPL 2017 PC Member, PAPI 2016 PC Member, PPOPP 2016 PC Member, POPL 2012 External Reviewing Committee, Coq Workshop 2012 PC Member.

*Referee*: ACM Transactions On Parallel Computing, Communication of the ACM, ACM Transactions On Programming Languages and Systems, ACM Transaction on Architecture and Code Optimization, Software Practice & Experience, Information Processing Letters, Higher-Order and Symbolic Computation.

*Reviewer*: AISTATS, SOCC, NIPS, ICML, POPL, PLDI, PPOPP, DISC, PPDP, SSV, CAV.

*Other*: National Science Foundation panelist in 2013, 2014, 2015. Treasurer for ICFP 2013.

PATENTS

*Sparse and data-parallel inference method and system for the latent Dirichlet allocation model*

Jean-Baptiste Tristan, Joseph Tassarotti, Guy L. Steele Jr.