

## Education

### University of Chicago

*BS in Computer Science and BS in Mathematics GPA 3.5*

Chicago, IL

*June 2013*

- Notable Courses: Topics in Operating Systems, Database Systems, Advanced Distributed Systems, Functional Programming, Graph Theory, Formal Languages, Algebraic Number Theory, Abstract Algebra, Discrete Mathematics, Analysis in  $\mathbb{R}^n$

## Publications

### Data-Only Flattening for Nested Data Parallelism

*L. Bergstrom, J. Reppy, S. Rosen, A. Shaw, M. Rainey, M. Fluet*

Manticore Project, University of Chicago

*PPoPP 2013*

- Generalized parallel segmented sums into segmented reductions, optimized segmented reduce

### Status Report: The Manticore Project (2012)

*C. Berger, L. Bergstrom, J. Reppy, S. Rosen, N. Sandler, A. Shaw, M. Rainey, M. Fluet*

Manticore Project, University of Chicago

## Work Experience

### Globus

*SaaS Backend Engineer*

Computation Institute, University of Chicago; Argonne National Lab

*July 2013 – Present*

- Used and developed Chef cookbooks to maintain servers backing the Globus service
- Managed the coordinated deployment of code from multiple development teams onto QA and production servers
- Refined the build and deployment processes using Git, Jenkins CI, AWS S3, and AWS EC2

### Manticore Project

*Contributor*

John Reppy, University of Chicago

*June 2011 – June 2013*

- Adapted thread scheduling to prioritize non-IO bound computations
- Developed a target for full or partial flattening on arbitrarily nested arrays and tuples as a Nested Flat Array

### Computer Science Instructional Laboratories

*System Administrator*

University of Chicago

*May 2010 – June 2013*

- Administered Mac OS X servers, Ubuntu servers, VMWare ESXi servers, and Mac OS X workstations
- Modified and used tools including radmin, Nagios, Fabric, Parallels, and VMWare
- Designed and implemented a centralized administration and configuration management service

### Computer Science Department

*TA, Grader*

University of Chicago

*January 2012 – June 2013*

- Networks and Distributed Systems (Winter 2012, Spring 2013), Computer Science with Applications I (Autumn 2012), Honors Introduction to Computer Science II (Winter 2013)

## Skills & Experience

- **Programing & Scripting Languages:** Python, C, SML, Bash, SQL, Ruby, Java, awk, make, flex/bison, AppleScript, x86 Assembly, C++, LISP, Haskell, Go, R, Lua, PHP, JavaScript, MATLAB, XSLT
- **Data Serialization, Templating, & Storage Languages:** JSON, XML, jinja, mustache, ERB, CSS, Liquid
- **Open Source Work:** SALVE ([www.github.com/sirosen/SALVE](http://www.github.com/sirosen/SALVE)), Manticore ([manticore.cs.uchicago.edu](http://manticore.cs.uchicago.edu))
- **Tools:** L<sup>A</sup>T<sub>E</sub>X, vim, SSH, git, svn, AWS CLI, cron, logrotate, nginx, Chef, Jenkins, nagios
- **System Administration Platforms & Operating Systems:** AWS, Mac OS X, Ubuntu, Debian, CentOS, RedHat, VMWare (ESXi)