

seanfarley

software engineer and mathematician

contact

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website

http://farley.io

social

fb://seanfarley
google://+SeanFarley
linkedin://seanmfarley

code

https://smf.io
bitbucket://seanfarley
github://seanfarley

programming

Python
C / C++
D
MPI
CUDA
Lisp

interests

version control systems
parallel programming
scientific computing
design patterns

experience

- 2015–now **Backend Bitbucket Developer** Atlassian
- Improved Mercurial support at Bitbucket
- 04–09 2014 **Facebook Contractor** Mercurial Project
- Designed and wrote namespaces API that allows any extension to cleanly operate with bookmarks, tag, and branches
 - Created an extension using namespaces API to track remote branches and bookmarks
- 06–09 2013 **Google Summer of Code Student** Mercurial Project
- Cleaned up legacy code to provide clear reference points for file status
 - Augmented file-merging framework for in-memory changes
 - Successful evaluation with over 127 patches accepted (average 20)
- 2010–2013 **Graduate Research Assistant** Argonne National Laboratory
- Published paper on **BOUT++**, a library for plasma nuclear fusion simulation
 - Developed advanced algorithms for nonlinear problems (NGMRES)
 - Integrated robust time-stepping methods for **PETSc** (IMEX)
 - Added framework for new mesh capabilities
- 2006–2009 **Graduate Assistant** Louisiana State University
- Implemented finite element code (P_1, P_2)
 - Provided theoretical support for graduate analysis classes
 - Built and maintained a computing cluster for three years for a research group using **MPI**

opensource

- 2013–now **Kallithea Cofounder** Kallithea Project
- Created an opensource Python clone of Bitbucket / GitHub that supports both Git and Mercurial
 - Integrated advanced Mercurial features and designed evolved graphlogs
 - Created hi-res graphics and scalable icons (Font Awesome)
- 2012–now **Mercurial Developer and Advocate** Mercurial Project
- Frequent contributor and maintainer of two extensions: hgsubversion and remotenames
 - Deep understanding of the template engine, changeset evolution, and hg-git
- 2012–now **MacPorts Team Member** MacPorts Project
- Maintain 220 math, science, and Python ports
 - Overhauled standardizing compiler variants
 - Learned how to work with a large team and user base while maintaining quality software

education

- 2010–now **Ph.D. candidate in Mathematics** Illinois Institute of Technology
Efficient numerical study for a boundary integral method on graphic processors.
- 2006–2009 **M.S. in Mathematics** Louisiana State University
- 2001–2006 **B.S. in Mathematics** Louisiana State University
Minors: *Physics* and *Mandarin Chinese*