

# Nelson Elhage

Cambridge, MA

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Blog: <http://blog.nelhage.com/>

Github: <http://github.com/nelhage/>

## Education

- **Massachusetts Institute of Technology**, Cambridge, MA  
Bachelor of Science in Electrical Engineering and Computer Science, June 2009  
GPA 4.9/5.0
- **Roxbury Latin School**, West Roxbury, MA  
2001-2005, Graduated *Summa Cum Laude* June 2005 with a 4.0 GPA

## Work experience

- **Oracle**, Cambridge MA – August 2011-present – Architect  
**Ksplice**, Cambridge MA – June 2009-July 2011 – Employee #1, Principal Engineer  
(Ksplice was acquired by Oracle in July 2011)  
Core developer on technology for creating and applying rebootless updates to the Linux kernel.  
Developed and maintained automated build and test infrastructure for thousands of kernel versions.  
Developed and maintained services to distribute updates and monitor customer deployments.
- **VMware**, Palo Alto, CA – Summer 2008 – Member of Technical Staff, Intern  
Extended support for VMware's next-generation virtual machine communication infrastructure.
- **Best Practical Solutions**, Somerville, MA – Summer 2006 – Software Developer (Intern)  
Developer for Hiveminder (<http://hiveminder.com>) and Jifty, a Perl web application framework.

## Other Experience

- **Other projects**
  - Developed <http://livegrep.com>, providing real-time interactive regular expression search over >450MB of source code.
  - Developed Virtunoid, a proof-of-concept guest→host privilege escalation exploit against KVM. Presented at Black Hat USA and Black Hat UAE 2011. (<http://github.com/nelhage/virtunoid>)
  - bemu, a JIT compiler implementing the “Beta” CPU, a fictional CPU used by several MIT courses. (<http://github.com/nelhage/bemu>)
  - Developer and former lead maintainer of Barnowl IM client (<http://barnowl.mit.edu>)
- **Relevant coursework**
  - Teaching Assistant, 6.828 *Operating Systems Engineering*, Fall 2007
  - 6.035 *Computer Language Engineering* Fall 2007  
Implemented an optimizing and data-parallelizing compiler for a C-like language.
  - 6.828 *Operating Systems Engineering* Fall 2006  
Implemented a minimal unix-style OS kernel and userspace

## Skills

- Proficient in C, Python, Javascript, C++
- Comfortable with Perl, HTML, CSS, Lisp/Scheme, Java, SQL, Haskell
- Comfortable with basic UNIX system administration.