Kyle Isom

Software Engineer
Github: https://www.github.com/kisom

http://www.kyleisom.net
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Bitbucket: https://bitbucket.org/kisom

Skills

- **Development:** C, Python, Clojure, Objective-C, UNIX / POSIX programming, network programming, security engineering
- **Software Engineering:** GNU Autotools suite, LaTeX, Texinfo,
- **Development Tools:** Valgrind, lint, rats, vim, emacs
- I know how to do the other engineering involved with software projects, such as documentation, build system setup, and developing useful unit tests.
- I have a strong background in computer security, particularly the field of secure programming. Some of my security skills include penetration testing, reverse engineering, and proactive network defense.

Work Experience

- **EchoStar Technologies, L.L.C.** Englewood, CO
  Software Security Engineer *July 2010 - Present*
  - Conduct code reviews and audits in `C` and `C++`.
  - Patch Linux kernel for embedded devices to address site-specific security requirements.
  - Write Python code to generate encrypted softtware updates for Linux-based set top boxes.

Selected Open Source Projects and Publications

- **Crypto Intro** Python
  An introduction to Cryptography with PyCrypto *June 2011*
  - Available online at http://www.kyleisom.net/blog/2011/06/17/intro-to-crypto/
  - Introduces cryptography to developers who may not have a solid understanding of not only **what** cryptography is, but also **when** to use it.
  - Uses Python to clearly introduce how to properly integrate cryptography into projects.
  - Includes source code examples with tests.
- **Libdaemon** C
  A lightweight POSIX daemon library. *2011*
  - Home page: http://www.tyrfingr.is/projects/libdaemon/
  - Written to satisfy the need for a common API to daemonise programs written in C.
  - Satisfies requirement that programs using the library compile and run under OpenBSD, OS X, and Linux.
- **Woofs** Python
  Share files easily from the commandline. *2011*
  - Github page: https://github.com/kisom/woofs/
  - Designed to quickly share a file over HTTPS.
  - Addresses the fact that similar programs were not using TLS/SSL.
- **srvwd** C
  Serve the working directory over HTTP. *2012*
  - Home page: http://www.tyrfingr.is/projects/srvwd/
  - Minimal webserver written in ANSI C.
  - Forking webserver that can be chrooted for security.
  - Designed to specifically facilitate rapid testing of statically-generated sites.