Kyle Isom
Software Engineer

http://www.kyleisom.net
kyle@kyleisom.net

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 (kisom.github.com/)

- **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.