

Elizabeth Chaos Golubitsky

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Objective

Network administration position specializing in security which will enable me to use and expand my experience with configuration management, monitoring, and automation.

Experience

Staff Scientist, September 2007 - present

BBN Technologies, Cambridge, MA

- Perform survey and original research and system administration tasks in support of contract projects.

Unix Operating Systems Analyst, July 2005 - August 2007

Information Assurance Directorate, National Security Agency, Fort Meade, MD

- Administered network of Fedora Linux workstations and servers. Used Cfengine-based infrastructure to upgrade from FC3 through FC6 without downtime.
- Provided Solaris and Linux security configuration guidance to DoD customers for a range of applications. Coauthored Red Hat Enterprise Linux 5 configuration guide.
- Performed analysis of the OpenSolaris kernel, particularly the IPv6 network stack implementation, and of other source code written in C.

Unix System Administrator, July 2000 - July 2003

Harvard-Smithsonian Center for Astrophysics, Cambridge, MA

- Administered and troubleshot machines at research institution with several hundred active users on mostly Solaris servers and clients
- Orchestrated transition from telnet to SSH for remote access, including system configuration, group and individual user education, and troubleshooting.
- Implemented spam and virus filtering based on procmail and SpamAssassin.
- Designed central log monitoring infrastructure using syslog and Perl.

Education

Carnegie Mellon University, Pittsburgh, PA: M.S. May 2005

Information Networking Institute: major in Information Security

- Classes: operating systems, broadband networks, computer and network security, cryptography, risk management, network security management (student-run class)
- Masters thesis: comparative vulnerability analysis of open source IMAP servers

Swarthmore College, Swarthmore, PA: B.A. May 2000

Double major in Computer Science and Mathematics

- Senior mathematics thesis: error-correcting codes

Skills

Operating Systems:

- Unix: 10 years user and administrator experience, including: Solaris (2.5.1-10, Trusted Solaris 8), Linux (Red Hat/Fedora, Debian), FreeBSD
- Macintosh operating systems (7.5-9, Mac OS X)
- Cisco IOS (12.3)

Programming languages:

- Proficient in: C, Perl, sh
- Familiar with: Python, awk, sed

Software and General Skills:

- Configuration management and system documentation: Cfengine, CVS
- Package management: RPM, yum, FreeBSD ports
- Security and networking: IPTables, SELinux, IPv6
- System and network monitoring: Nagios, RRDtool
- Testing and debugging: snoop, truss, tcpdump, strace, DTrace, MDB/GDB
- Virtualization: Qemu, Xen, Solaris zones, FreeBSD jails
- Code visualization: Grammatech CodeSurfer, LXR, Imagix 4D
- Other software administered: Bacula, Bind, LVM, OpenLDAP, Postfix, Sendmail, OpenSSH, Apache, Vsftpd

Publications Guide to the Secure Configuration of Red Hat Enterprise Linux 5
Operating Systems Division Unix Team of the Systems and Network Analysis Center,
NSA, 2007

“Simple Software Flow Analysis Using GNU Cflow”
Article in login: magazine, April 2006

“Toward an Automated Vulnerability Comparison of Open Source IMAP Servers”
Refereed paper, LISA 2005

Solutions Manual for: Linear Algebra and Differential Equations Using Matlab
M. Golubitsky and M. Dellnitz, Brooks Cole Publishers, 1999

Awards Heinrich W. Brinkmann Mathematics Prize, Swarthmore College, 2000

Clearances **Top Secret/SCI, July 2005 - August 2007**
National Security Agency

Activities **System Administrator, May 2005 - present**
Swarpa.net

- Administer primarily e-mail and web-based services, including wikis (MediaWiki, Dokuwiki) and virtual domain hosting, for approximately 45 users.
- Performed zero-downtime migration of active mailing lists for two domains from Majordomo to Mailman.

System Administrator, December 2002 - September 2005
I Do Foundation, Washington DC

- Administered web, e-mail, backups, and other services for nonprofit organization on a volunteer basis.