

Work Experience

Host-Paste Consulting, August 2006 to present

IT Consultant/Principal

- ◆ Business process automation and integration, primarily using web services.
- ◆ System and network design, installation, and support for small businesses.

Michigan Technological University, July 2004 to present

Senior Unix System Administrator, Central Engineering Computing Network

- ◆ Design and deploy hardware and software supporting both infrastructure-class network services as well as intensive instructional and research use.
- ◆ Support widely varied needs of the Computer and Network System Administration academic program, including configuration and documentation of enterprise hardware and networking equipment. Assist instructors with curriculum design.
- ◆ Coordinate and manage work with coworkers and groups in the college and university.
- ◆ Develop and support custom software applications for academic and research use.
- ◆ Design, deploy, and manage 8 TB of production SAN storage and backup/restore systems.
- ◆ Fully automate server and workstation provisioning and configuration management using Kickstart, Red Hat Network, and custom disk imaging tools for Microsoft Windows systems.
- ◆ Provide advanced user support for over 2000 users in three academic departments and several research groups.
- ◆ Advise director in budgeting, project planning, and purchasing decisions.
- ◆ *Also many duties of the position below.*

Michigan Technological University, January 2002 to July 2004

System Administrator/Manager, Department of Geological and Mining Engineering and Sciences

- ◆ Negotiated and purchased software license contracts. Designed and purchased hardware supporting critical department functions.
- ◆ Managed instructional computing budget, including budget planning, purchasing, and assisting in research computing budgeting.
- ◆ Designed and deployed hardware and software systems supporting intensive instructional and research computing.
- ◆ Automated system administration tasks such as service monitoring, statistics generation for performance analysis and capacity planning, user account maintenance, and configuration management.
- ◆ Generated thorough documentation for deployed systems and services, as well as end user documentation covering software, hardware, and computing policies.
- ◆ Provided face-to-face, phone, and email support for faculty, staff, and students in GMES and the Remote Sensing Institute. Worked directly with research groups to solve computational problems.
- ◆ Managed part-time computing support personnel. Recruited, hired, trained, and supervised student employees. Coordinated and managed long- and short-term projects. Prioritized projects and support requests.

Michigan Technological University, June 2001 to January 2002

System Administrator, Department of Chemistry

- ◆ Planned and executed transition from existing shared network to new independent Chemistry network.
- ◆ Coordinated and managed construction of new server room and conversion of existing lab to student computing lab.

- ◆ Procured and deployed Solaris and Windows servers, providing complete network services.
- ◆ Provided support to 120 faculty, staff, and students.
- ◆ Automated system administration tasks, such as server and workstation provisioning using Solaris JumpStart, and user account administration.

Major Projects

- ◆ Co-developed and maintained role-based user accounting system supporting over 6000 users. Implemented source control system (CVS), change management procedures, and full test instances. Strengthened Perl development skills, familiarity with enterprise databases such as Banner, and knowledge of directory services including NIS and Active Directory.
- ◆ Developed and supported college-wide services such as a user request tracking system (Request Tracker), and a dynamic email list management system based on GNU Mailman.
- ◆ Designed and implemented independent network supporting instructional use by MTU's Computer and Network System Administration program. Strengthened working knowledge of firewalls, filtering bridges, and layered network security techniques (SELinux, Netfilter, tcp_wrappers, and others).
- ◆ Designed and supported two VMware Infrastructure clusters, one with 16 nodes supporting over 100 users and 500 virtual machines.
- ◆ Developed computing lab imaging system using free, open-source software. Clients PXE booted and received disk images via multicast, enabling support personnel to deploy lab images at nearly full network speed.
- ◆ Developed and supported secure faculty and graduate student application discussion and voting forum, based on phpBB. Provided complete documentation and continuing support to forum users.
- ◆ Designed and implemented complex email systems using Postfix, Courier, advanced content filters, etc. Provided secure web user interfaces for mail filtering, quarantine management, and other common tasks.

Education and Certification

- ◆ Michigan Technological University, August 1997 to present. Currently completing B.S. in Computer Systems Science.
- ◆ Red Hat Certified Engineer, May 2007. Certified for Red Hat Enterprise Linux 5 and 6.
- ◆ Halliburton OpenWorks Certified System Administrator, Feb 2002.

Professional Activities and Development

- ◆ Member of MTU System Administration Council since 2001, serving as chair and in other official capacities.
- ◆ Participated in the Academic Lab Management Conferences (LabMan).
- ◆ Attended Performance Dynamics Capacity Planning training, SANS Web Application Security Workshop, and many other training sessions and seminars.

Technical and Other Skills

- ◆ System administration of Red Hat Enterprise Linux, FreeBSD, Solaris, Microsoft Windows, and embedded platforms.
- ◆ Programming in Perl, C/C++, shell (Bourne and C). Familiarity with PHP, Fortran, and other languages.
- ◆ Design and administration of production virtual machine clusters using VMware Infrastructure.
- ◆ Storage hardware and infrastructure including tape libraries, EMC CX and AX storage arrays, and FC SANs. Tape and disk backup/restore hardware; software including Bacula Network Backup System and Veritas NetBackup.
- ◆ Administration of infrastructure support software such as Nagios, OpenVPN, Kickstart, NFS, and Samba.
- ◆ Administration of complex networks and supporting software such as PF, Netfilter, DHCPd, BIND, etc.
- ◆ Excellent written and oral communication skills. Ability to effectively communicate with people from a wide variety of backgrounds.