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Objective

I am a computer engineer with 10 years of experience as a project manager in the design and implementation of large-scale infrastructure services.

I am interested in opportunities to contribute to a team making major changes in important areas, and challenging myself to grow further as a professional. Of particular interest to me are web technologies, computer security, and support of computing in research.

Experience

Manager, LSAIT Mac/Unix Infrastructure team
The University of Michigan

June 1998 - present

Manage team providing Unix and Macintosh infrastructure services for the College of Literature, Science, and the Arts. (Initially team leader; promoted to manager, February 1999.)

- Manage staff of four Senior System Administrators: weekly project management meetings, workplanning meetings the times per year, annual performance reviews. Guide staff's professional development. Hire and train new staff. Manage and direct contractors from ITCS Contact Services.
- Team manages 61 production servers, 3 publicly accessible test servers, and 10-15 additional non-public test and development servers. The production servers are spread across 5 server rooms that are managed by the team in whole or cooperatively with other groups.
- Participate in the deployment, maintenance, and support of the services provided by the team, including:
 - Managed loadsets for: Linux servers (RHEL4 AS, managed via Red Hat Satellite server), MacOS X workstations (Tiger, managed via SNI and ARD3), and Solaris workstations and servers (Solaris 8, managed via Synctree; to be decommissioned by the end of 2006).
 - High-performance computing: 17 node Linux Rocks cluster, 17 node Apple XServe cluster, 5 node test Apple XServe cluster.
 - FootPrints request tracking / help desk automation service.
 - Apache web and MySQL services; used for the LSA Classroom Database server, the LSA Media Services WebCheckout server, etc.
 - DNS and DHCP services for LSA, including web-enabled administration for DHCP (CMU NetReg).
 - AFS cell and Kerberos realm (both to be decommissioned by end of 2006).
- Provide 2nd and 3rd level support and consulting to department IT staff in LSA. Provide consulting to faculty and department business managers in special circumstances. Run monthly College-wide Mac/Unix meetings.
- College's technical lead for server room power and cooling:
 - Responsible for power and cooling capacity analysis; server room facilities planning; rack, UPS, and PDU selection; primary person responsible for responding to and following scheduled and unscheduled power and cooling outages, flooding, etc.
 - Member of the MITC Datacenter Operations Group: involved with drafting operation policies, consulting on datacenter build-out and construction decisions, member of physical access and security sub-committee, drafted rack requirements and standards.
 - Responsible for managing the LSA-rented space in the School of Information North machine

- room. Member of team that negotiated and wrote the MOU for the SI North space and managed the facilities upgrades to the space.
- Provided server space in LSA server rooms to LSA departments; wrote and managed the SLAs governing the server hosting.
 - Assisted LSA departments with interviewing and hiring IT staff. Conducted technical skills assessment interviews. Designed and wrote a web-based technical skills assessment tool, allowing departments to consider two to three times as many candidates in half of the time (compared to doing solely in-person skill assessments). Provided training in AFS cell administration, Kerberos realm administration, Synctree, and College-specific services for newly hired staff.
 - Work with ITCS (and, previously, the School of Information) to collaboratively maintain, upgrade, manage, and support the University-wide FootPrints request tracking service.
 - Manage team's budget and day-to-day finances.
 - Write new service proposals and analyses for upper management and the LSA Dean's Office.
 - Managed all computing services for a major LSA department for three years (in addition to other duties, above). Deployed 1/2 of my team's staff plus contractors to the department in order to ensure classes would be able to be taught the next term. Earned the trust of department administration and faculty. Worked with department administration to create new IT support policies, standards, and expectations. Replaced the majority of the department's servers in order to modernize them and solve reliability problems. Upgraded the department's instructional computing labs and reorganized the student staff that ran them (including hiring, training, and managing new students each semester). Replaced all thin-client X terminals in the department with Unix workstations and upgraded a large fraction of the desktop machines. Supported research labs with special data storage/management needs. Hired and trained all-new staff to replace my team and the contractors. The department's IT support has been stable and successful since I left.

**Manager, ITCS Contract Services
The University of Michigan**

July 1996 - June 1998

One member of a two-person team managing ITCS Contract Services.

- Worked with customers to determine their needs, negotiated contracts, assigned staff, monitored contract progress, and followed up to ensure customer satisfaction.
- Managed staff of 15 professional system administrators and 14 desktop support providers. Hired new staff, conducted performance reviews, assisted staff with their professional development.
- Designed and implemented new services, including the Desktop Support Service.
- Created fiscal-year and three-year budgets for the group. Integrated ITCS' time-tracking system with the group's financial spreadsheets using Oracle 7.3.

**System Administrator, ITCS Contract Services
The University of Michigan**

April 1995 - June 1998

Contracted to various sites around campus to provide system administration, consulting, and user support services. Assessed customer needs, wrote proposals for solutions, and implemented the solutions: ordered equipment, installed hardware and software, performed systems integration, trained users, etc.

- **Comprehensive Cancer Center Biostatistics Core:** Implemented backup solution, upgraded and modernized their Unix computing environment, performed SAS / Oracle / Apache integration, provided end user support. Security and documentation per the Food and Drug Administration Guidance for Industry "Computerized Systems Used in Clinical Trials".
- **SNRE GIS Research Facility:** Maintained research and classroom environment consisting of Unix, Windows NT 4.0, and Macintosh systems; worked in partnership with ITCS Campus Computing Sites to design and install a new 100 Mbps and switched Ethernet network; designed and deployed a high-end GIS file and compute server solution; provided end user support.
- **Digital Microscopy and Scientific Visualization Collaboratory** Led a team of four system administrators on a major pharmaceutical study: maintained Unix computing environment, FDDI, switched Ethernet, and ATM networks; programmed in Visual Basic to maintain and enhance

- electron microscope control software; administered the dmsv.med.umich.edu AFS cell.
- Dozens of other, smaller, contracts.

**President/Treasurer
The Xenosync Corporation**

August 1992 - March 1995

Started a two-person computer engineering and consulting firm.

- Ported and Unix software to Linux. Identified and eliminated bugs. Improved user interfaces.
- Researched and proposed a design for a computer bus based on a cross-bar network of smaller buses. Worked with an attorney to perform a patent search for prior art.
- Performed a design feasibility study for a COBOL-to-C translator for Unix platforms. The code produced by the translator was required to interface with existing database engines.

**Backup Operator, CAEN Operations
The University of Michigan**

November 1992 - May 1993

Administered backup services for network of over 2,300 Unix workstations, IBM PCs, and Macintosh computers. Maintained and revised backup programs and scripts. Performed troubleshooting, preventive maintenance, and hardware installation.

Expertise

Languages: Perl, C/C++, HTML, JavaScript, CSS2, Bourne shell, XML, XSLT, Java, Pascal, FORTRAN, TeX, Assembly.

Operating systems: Linux (primarily Red Hat Enterprise Linux Advanced Server 4 managed via Red Hat Satellite Server), MacOS X (Tiger), Solaris 8, Windows XP Pro.

Services: Apache HTTPD (including cosign, mod_perl, and mod_php), MySQL, Sendmail, OpenAFS (10 years experience administering AFS cells), FootPrints (request tracking / help desk automation system), Kerberos 5, ISC BIND, ISC DHCP, Cyrus IMAPd, FlexLM (and other license servers).

Other: Data center and server room management.

Education

**The University of Michigan
Computer and Electrical Engineering**

1988 - 1991

Data Structures and Algorithms, Operating Systems, Computer Networking, Compiler Construction, Theory of Computation, Microprocessor Architecture and Design, Digital Logic, Circuit Design, Signals and Systems, Electromagnetics, Materials Science.

Professional training: Team Leader Training, Foundations of Supervision.

Other: Invited speaker at the 2004 and 2005 FootPrints User Conference; author of the book "FootPrints Under The Hood: Supporting and Extending FootPrints In-House" (2 editions with approximately 400 copies distributed worldwide).

Interests

Japanese language and culture; Japanese animation; science fiction and fantasy literature; technology.

Private Pilot's license with instrument rating for single-engine land-based aircraft. Certified in high-performance aircraft. (Non-current since 1993).

References are available upon request.