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**Education:** B.S. Information and Decision Systems, Carnegie-Mellon University, 1990

**Skills:**

*Leadership and Communications* – project management, presentation skills, recruitment of teams from ground up, writing documentation/proposals/policies, ability to identify and prioritize tasks that need to be accomplished based on very high level and/or ambiguous directions

*Design and Implementation of Web Applications Infrastructures* – network design, security practices, design/specification/purchase/implementation of server environments, producing specifications for developers, project leadership for development of portal including email, news, search and RDBMS backend

*Design and Operations of Distributed Computing Environments* – in addition to web applications above, also highly experienced in other distributed computing environments: leadership of NERSC Grid efforts to build the DOE Science Grid, cutting edge experience in building production quality Grid infrastructures for international collaborations, experience in operations of mid-sized (300 processors) batch computing clusters, leadership in setting security standards for Grid computing, extensive background in mid to large site computing, as well as experience building production quality commercial and research computing infrastructures and operating them on an ongoing basis.

*Specifics:* Proficient in Perl (including OO perl extensions, mod\_perl and interfaces to RDBMS), SQL, Oracle, C, C++ programming, Python, XML, Java application servers (jserv and weblogic), HTTP, HTTPS, SSL, CGI, Data Modelling for RDBMS, development tools for managing content publishing and site management, NFS, NIS, firewalls, search engines, Solaris, Linux, Irix, FreeBSD, DNS, sendmail, Globus Toolkit 2.x, PKI infrastructures, PAM, LDAP, VPN

**Experience:**

***1/2001 – present: Computer Systems Engineer, NERSC division, Lawrence Berkeley National Lab***

Team lead for PDSF Cluster: led team of 4 senior systems administrators in management of a 200 node computer cluster with 30 TB of online storage. Set technical direction, interacted with vendors, led expansion to PDSF that doubled capacity. Cluster used in physics experiments that detected phase shifts in solar neutrinos, and discovered additional supernova based on analysis of Hubble Space Telescope images.

Production Grid Lead: led multi-year, multi-group effort to deploy Grid Technologies across all NERSC production computer resources.

- Defined overall architecture, operational procedures and implemented core infrastructure for security and authentication at NERSC
- Participated in Global Grid Forum working groups relating to security
  - o co-author of a GGF policy document on automated client certificate usage
  - o author of GGF Production Grid Management security document on compromise mitigation.
- led the development of an LDAP directory service across NERSC
- implemented a secure credential repository for storage of PKI certificates
  - o built specially hardened Linux systems for credential repository
  - o interfaced repository with NERSC account management system and ESNet Certificate Authority
- Completed project goals well in advance of original schedule
  - o All NERSC production systems have Globus installed and available
  - o DataGrid services in operation on all production systems
  - o Established NERSC as an authority in the field of production Grid security.

***7/2000 – 12/2000: Technical Entrepreneur, Reactivity Inc***

- Responsible for internal IT infrastructure
  - o Backup
  - o Email
  - o file servers
  - o Phone system
  - o corporate security

***9/1999 – 7/2000: Director of Production Systems, Quaartz Inc (acquired by Appiant Technologies)***

- Manager of team responsible for 24x7 server operations
  - o Negotiated deals with vendors for hardware, software and services
  - o Recruited team from ground up
  - o Project management
- Administered production e-commerce environment
  - o Set system configuration standards and remote installation configs
  - o Monitoring
  - o VPN implementation
  - o Defined security policies
  - o Ownership of processes relating to problem escalation, release management and reporting
  - o Lead the design and implementation of the production server and network architecture, as well release management process from development environment into production systems.

***11/1998 – 9/1999 Manager of Internet Systems Engineering, Portera Systems***

- Managed systems engineering team
  - o Recruiting developers and administrators
  - o Specification of security practices
  - o Main contact for WebTrust audit by KPMG
  - o Negotiated with vendors for purchases
- Technical Leadership
  - o Architected and implemented internet portal in 90 days
    - Multi-language, multi-tiered platform
    - Supported syndicated news, email, search engine and trouble ticketing
    - Worked to define data models
    - Coded application code in Java and Perl using XML, DOM, SQL writing both client and server tools
  - o Led design and implementation of applications release process
  - o Created core Unix development and production environment single-handedly
    - Deployed complete open source tool chain, GCC, CVS, rsync, editors, gdb, make, etc...
  - o Team lead for development of internal bug tracking system
  - o Designed business to business XML strategy

***7/1997 – 11/1998 Senior Unix Administrator, Lucasfilm Limited***

- Completely overhauled internal Unix environment to bring it to production quality
  - o Deployed first intranet at Lucasfilm
  - o Migrated email system
  - o Upgraded and maintained Oracle Financials servers for Lucasfilm Limited, Industrial Light and Magic and LucasArts
  - o Specified, purchased and maintained 1TB disk farm
  - o Implemented Lucasfilm's first firewall
  - o System tuning for improved Oracle performance
  - o Maintained Oracle servers and clients, as well as SQLNet services.
- Web development
  - o Developed security and session state infrastructure for Lucasfilm web applications
    - Wrote OO Perl modules to interface to Oracle backend
    - Defined schemas for portal infrastructure, as well as process for releasing schema changes from development into production
  - o Created release management system
- Support of Star Wars Art Department
  - o Supported Unix workstations used by animators in pre-production art department
- Negotiated with vendors for over \$2M of hardware and software upgrades
- Mentoring junior administrators

***1/1997 – 7/1997: Web Systems Technologist, Javasoft (Sun Microsystems)***

- lead technical resource for server administration of [www.javasoft.com](http://www.javasoft.com) and [ftp.javasoft.com](http://ftp.javasoft.com)
- Administered internal search engine
- Controlled process for publishing from internal development web content into production servers
- Upgraded Javasoft web servers with no visible downtime to end users

***8/1995 – 1/1997: Senior Unix Administrator, The 3DO Company***

- Lead administrator for site containing ~100 hosts
- Technical leadership and mentoring to mid-level administrators
- Operated servers for [www.3do.com](http://www.3do.com) and 222.meridian69.com
- Worked on team that designed billing system for Meridian69 online gaming system
  - o Oracle DBA duties
  - o Worked to define data model for billing system

***2/1996 – 8/1995: Senior Unix Administrator, J. Frank Consulting (now Chordiant Systems)***

- Sole administrator for site containing ~10 hosts
- Overhauled internal environment for increased stability
- Migration to new networking medium
- Day to day operational duties for Unix and Windows environment

***2/1994 – 2/1995: Senior Systems Programmer, Stanford University***

- Responsible for AFS file server administration
  - o Monitoring of load and connectivity of servers
  - o Implemented load balancing tools

***1/1993 – 2/1994: Systems Programmer, Transarc Corporation***

- Responsible for creation and installation of new servers
- IT lead for creation of licensing system for DCE/Encina
  - o Defined database schemas for licensing information

***7/1990 – 1/1993: Database Applications Programmer, Carnegie-Mellon University***

- Junior Ingres DBA
- Creation of Telecom Department billing application
- Training of users in application