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Profile

Twenty years of experience in the IT industry, including technical and organizational leadership, with a broad technical skillset including security engineering, systems engineering, and software development at very large scale.

Core Competencies

- Help smart technical people improve their business focus and relational approach so that they can use their technical expertise to the greatest advantage.
- Building relationships and alliances with people in order to move towards business objectives.
- Strong high-level technical skillset in security engineering, systems engineering, and software development combined with the ability to grasp new technical issues quickly and understand their relationship to the business environment.
- Demonstrated ability to think, plan, and design at a variety of scales, from small networks to large geographically distributed fleets of servers.
- Ability to adjust my level of technical discourse for a variety of audiences.

Employment History

1998-2003, 2004-current

Various positions at Amazon.com, Seattle, WA USA

Increasingly responsible series of positions in Systems Administration, IT Security, Infrastructure Automation. Participated in, and eventually became a leader in Amazon's "Bar Raiser" program which is focused on hiring the best and brightest to work at Amazon. Responsible for training process for new Bar Raisers in an organization of 1000+ people. Defined processes and made them more transparent within the Bar Raiser community.

2006-current

Manager, Systems, Infrastructure Automation, Amazon.com, Seattle WA USA

Responsible for software automation of host provisioning and configuration management for the Amazon fleet which consists of tens of thousands of physical and virtual servers. This automation stack has high availability, reliability, and security requirements. Acting as Scrum Master and brought scrum process to this team. Hired software development and systems programming expertise into a team that originally was exclusively a systems engineering team realizing that business requirements could only be met with a mix of software development and systems engineering experience. Led a team working with HR to produce a career path document for Systems Engineers at Amazon, including obtaining buy off from executive management.

2004-2006

Senior IT Security Engineer (part time), Seattle WA USA

Designed an automated provisioning stack for a Linux laptop image with an encrypted filesystem, key escrow, firewall. Consulted on a variety of security issues related to host security and systems management. Wrote website log analysis tool to detect phishing sites.

2000-2003

Senior IT Security Engineer, Amazon.com, Seattle WA USA

Responsible for Linux/UNIX host security across the enterprise. Wrote host security policy. Designed and implemented policy enforcement mechanisms. Migrated Amazon from insecure to more secure protocols. Tracked security flaws in third party and drove patching and mitigation. Acted as security reviewer for architecture and implementation of new website features. Managed internal firewalls. Implemented Nessus vulnerability scans.

1998-2000

Senior UNIX Administrator, Amazon.com, Seattle WA USA

Redesigned and reimplemented Amazon's serial console infrastructure. Overhaul of Amazon's automated paging system for notification of high severity events.

1997-1998

Principal Network Administrator/Software Engineer, Primex Technologies, Redmond WA USA

Lead Network Administrator for Primex in Redmond. Responsible for network infrastructure (routers, switches, WAN links, etc.), Internet connectivity and firewall, and about 100 UNIX based workstations and servers. Supervise junior/intermediate systems administrators.

1996-1997

Senior System Administrator, Progressive Networks, Seattle WA USA

Lead System Administrator for the Broadcast Services group. Implementation of UNIX based Internet servers for distribution of multimedia content. Supervised junior systems administrator.

1996

Senior Systems Administrator, Cisco Systems, Inc. San Jose CA USA

Systems Administrator in Engineering Computer Services (ECS) assigned to Enterprise Network Management (ENM) group. Migrated approximately 100 ENM workstations and servers to ECS support. Introduced the use of Jumpstart to Cisco to automate builds of Solaris hosts.

1994-1996

Senior Network Administrator, Compression Labs, Inc., San Jose CA USA

Lead UNIX systems administrator for a network of 120 Sun workstations and servers. Internet firewall setup and Email gateway management. Supported hardware and software engineering, marketing, manufacturing. Supervised junior network administrator. Migrated network of Sun workstations from Sun OS 4.1.x to Solaris 2.x using Custom Jumpstart.

1991-1994

Systems Administrator, SoftQuad Inc. Surrey BC, Canada

Total responsibility for administration of heterogeneous network (UNIX, PC (Windows 3.1 and NT), and Mac computers). Supervised junior systems administrator. Supported application developers, technical trainers. Set up, monitored, maintained communications links between corporate offices and to the Internet. Ported tools and applications between platforms.

1991

Member of the Technical Staff, MPR Teltech Ltd., Burnaby BC, Canada

UNIX RPC network programming in C.

1989-1991

Software Engineer II (Toolsmith), Computer Research Laboratory, Tektronix, Inc. Beaverton OR USA

Selected, built, maintained and supported software tools for use on the CRL network of Sun and Tektronix workstations. Ported applications and libraries to Sun and Tektronix OS platforms. Installation, support, and configuration of SunOS and UTEK.

1988-1989

System Administrator, Department of Mathematics, University of Oregon

Responsible for installing and maintaining the Math Department's network of Sun computers.

1987-1988

Graduate Teaching Fellow, Department of Mathematics, University of Oregon

1984-1985

Computer Programmer, Ontario Institute for Studies in Education

Wrote, maintained and ported (TOPS-10 to VMS) C, Fortran, Pascal programs for data manipulation, statistical analysis.

Education

2005 **M.A. Counseling Psychology with an Emphasis on Depth Psychology**, Pacifica Graduate Institute.

Research focus on psychological aspects of paid work.

1988 **M.S. Mathematics**, University of Oregon.

Specializing in the study of algorithms for effective, efficient computation in permutation groups

1987 **B.Sc. (Specialist Mathematics with High Distinction)**, University of Toronto

Publications / Free Software Contributions

Change sun hostid

<http://www.squirrel.com/squirrel/sun-stuff/change-sun-hostid.tar.gz>

A set of utilities for modifying the hostid of a Sun workstation running Solaris 2.x or Sun OS 4.1.3 which is intended to be used by systems administrators in the execution of a disaster recovery plan. Originally posted to comp.sources.unix as HID. The later versions include loadable system calls (via modload), support for Solaris 2.x on Intel hardware

The SUN NVRAM/hostid FAQ

<http://www.squirrel.com/squirrel/sun-nvram-hostid.faq.html>

This document tells how to repair Sun workstations with a dead NVRAM battery or a corrupt NVRAM

Unstrip for Solaris 2.x

<http://www.squirrel.com/squirrel/sun-stuff/unstrip-sol2-1.01.shar>

Restores much of the symbolic information removed by strip in a dynamically linked Solaris 2.x binary so that it is accessible to debuggers such as adb.

L3, a public domain implementation of the LUC public key cryptosystem for SunOS, HP/UX, AIX, and Linux

Ported CFS (an encrypting file system for UNIX) to IRIX, HP/UX, AIX, and Linux, and fixed some serious bugs

FGMP

<http://www.squirrel.com/squirrel/fgmp-1.0.1.shar>

A public domain portable multiple precision arithmetic library, posted to comp.sources.misc

Performance enhancements to RIPEM

<ftp://ripem.msu.edu/pub/crypt/ripem>

RIPEM is a package for digital signatures and public key encryption of Email, and ports to IRIX, HP/UX, AIX, Linux, SCO UNIX

The MIND LINK (formerly Wimsey) Cryptography Archive (now defunct)

This was one of the largest collections of cryptography papers and software available on the Internet.

Added curses based screen-mode support to TECO-C under SunOS 4.0.3 and 4.1.x

Permutation Group Algorithms, Technical Report 200/87, Department of Computer Science, University of Toronto

References available on request.