**Curriculum Vitae / Resumé**

Tobias J. Kreidl -- April 5, 2014

**Education and employment history:**

1972: Graduated from Rolla High School, Rolla, Missouri, ranked 16th in class of 222

1979: Ph.D., University of Vienna, Austria, Astronomy (with minor in experimental physics)

1979-1980: Research Associate, Dept. of Physics and Astronomy, Ruhr University Bochum, Germany

1980-1993: Astronomer, Lowell Observatory, Flagstaff, Arizona (astronomical research, computer

systems management)

1988-present: Adjunct Faculty, Physics and Astronomy, NAU College of Arts and Sciences

1993-1994: Computer System Manager, Planetary Science Institute, Tucson, Arizona

(computer systems management, research)

1994-present: Systems Administrator/Programmer/Technical Webmaster, NAU Information Technology

Services, Academic Computing (system administration, project management, budgeting/purchasing, security,

OS patches/upgrades, custom application programming, backups/restores, service contracts, team lead duties,

personnel management of 6-7 full-time staff and a variable number of students)

Systems Analyst: Jul. 1994 - Jun. 1995   
 Systems Analyst, Senior: Jul. 1995 - Aug. 1997   
 Systems Analyst, Principal: Sep. 1997 - Nov. 1997   
 Systems Programmer, Principal/Academic Computing unix Team Lead: Dec. 1997 – Nov. 2008

Merged Academic Computing Student Computing and Networking Team/ACAD unix Team Lead: Nov. 2008- present

**Computer Hardware and Operating Systems** (**sysadmin and/or user):**

Digital Equipment Co.:

PDP-12 (DIAL)

PDP-11, LSI-11 (RT-11, RSX-11M)

VAX-11/7XX, MicroVAX II, DEC Alpha (VMS, OpenVMS)

Sun Microsystems:

Sun 4/260, SPARCstation 1,1+,2,IPC,IPX (SunOS)

SPARCstation 2/5, SPARCserver 1000 (Solaris 2.5, 2.6)

Ultra 1, 5, E450, E4000, 2XXR, Netra, V2XX, V880, X4600 (Solaris 8/10)

X86/AMD:

x386, x486, Pentium I-IV, AMD Athlon (MS-DOS,Windows 95,98,NT2000,XP and FreeBSD,

Red Hat Linux 8,9,AS3,AS4, RHEL 4,5,6, Sun Solaris 8,x86, a little Solaris 10)

Miscellaneous/Historic:

SGI Iris(IRIX), HP3000(BASIC), Control Data Corp. Cyber-73 (NOS/BE), Motorola 680XX(Linux)

Peripherals:

Disk connectivity: IDE, SCSI, ATA, SATA, Fiber Channel, SAS, iSCSI, KVM

Disk formats: FAT 16/32, NTFS, DEC RT11/RSX/VMS, unix, Veritas vxfs, Linux ext2/3/4, LVM

Disk drives/arrays: Nexsan SATAblade, Sun S1, D1000, A1000, T3, 6130 SAN, Dell MD36xxi, MD1200

Tapes: 9-track, QIC 60,150, Exabyte, DAT, DLT

Networking/Connectivity: McData Sphereon Fiber Channel controller, Ethernet hubs, switches

Hardware installation: networks, cables, disks and disk arrays, memory, Ethernet/fiber channel/disk

controller cards, etc.

Printers: impact, inkjet, laser – directly attached and network printing

Modems: various models through 54 kbaud, as well as DSL

**Programming Languages:**

FORTRAN II, IV, 77 (some FORTRAN 90)

BASIC, FOCAL

C, perl, some C++, a little java, Makefile, some CVS/Subversion, some python, HTML, some XML/XSLT,

sh, csh, some ksh, expect scripts

**Applications:**

Shell environments/scripts, stand-alone perl, CGI routines using perl, C, etc.

Apache 1.X, 2.X servers including SSL mod\_security and mod\_evasive, some BEA Weblogic and

tomcat server experience,

.htaccess, security, virtual hosts, some CAS and other authenticators, various CMS (WebCT, Vista,

Webcaucus)

PKI SSL certificate license management with Thawte as chief security officer for SSL certificates, as well as

With GloBalSign and most recently, InCommon

Sun, Red Hat and Citrix software and hardware licensing and service contract management

License management for IBM/SPSS, SAS SAS/JMP

Samba, ColdFusion, some SQL\*PLUS, some Oracle 8,9 and MySQL client installation experience

Sendmail, Postfix, POP, IMAP, POPS, IMAPS, pine, policyd, some amavisd-new, TCPwrappers and some iptables

Sockets, ssh tunneling, some SOAP inter-machine connectivity, Sun SGD (Secure Global Desktop), some

VMware ESXi, Citrix XenServer 5.X – 6.X, some Citrix XenDesktop, quota, vxquota, automounter (autofs),

directory exports/imports, Dell MDSM, Cisco FWSM firewall

System custom logs, monitoring routines, Orca, Nagios, Web stats, account building/maintenance/tracking

Interfacing with LDAP and CAS services; EZproxy (oclc.com), DNS services

Symantec Veritas File System and Volume Manager 3.X/4.X, meta devices, Veritas Netbackup products

Sun DiskSuite meta devices; hardware and software RAID management, Dell PERC hardware RAID management

Red Hat Linux AS High Availability clustering, VMware 5 desktop, some VMware ESX Enterprise Service HA,

Citrix XenServer 5.X,6.X including high-availability and license manager (Enterprise and Advanced editions)

Familiarity with procmail, spamassassin mail filtering tools

Experience with security tools, sudo, satan, network monitoring and analysis, OS tuning

Web authoring using vi, FrontPage, Dreamweaver; currently studying Fireworks, Flash, and CSS

Security and emergency response experience, including 24x7 on-call duty for over 20 years

Interfacing with law-enforcement agencies, including Flagstaff PD, NAU PD, FBI, Secret Service

Experience gathering and providing evidence related to legal issues, searching through log files

Windows applications, including MS Word, Excel, PowerPoint, Producer, FrontPage, some MS Project, Visio and

Sharepoint

OpenOffice equivalents to MS products (Writer, Calc, Draw, Impress)

TeX, LaTeX, PostScript, Adobe Acrobat, Adobe Photoshop, Gimp, some Dreamweaver 8

Subscribed to BUGTRAQ mailing list

Astronomical image processing packages, such as Tololo-Vienna, IRAF, some IDL

Search engine server installation and management, including Ultraseek, Inktomisearch, Glimpse, Excite,

Google Mini Appliance and Google Site Search

ssh, scp, ftp, sftp, syslog, VNC, VPN, private networks, NFS, rsync, rdist, cron, awk, grep, quotas, regular

expressions, ufsdump, cpio, tar, etc.

Programming computer-controlled instrument systems at Lowell Observatory (CCDs, spectrographs,

photometers)

**Other Qualifications:**

Over 120 astronomical publications (see http://www2.nau.edu/tjk/tjk\_publications.pdf)

Familiar with astronomical research environment (over 25 years of experience), including writing and

administration of NSF, NASA, IUE and other grants

Expertise in computing and astronomical applications and facilities, planning, personnel and project

Management, system architecture (have designed and implemented XenDesktop farms with > 300 units)

Part-time instructor in Computer Science at NAU, 1982-1983

Member of USENIX, American Astronomical Society/DPS, International Astronomical Union (past member of

DECUS)

Member of Coconico Community College Computer Science Advisory Council since 2006

Worked as a private consultant on computer applications, system administration and networking

**Personal Information:**

Born in Rochester, NY (1954) – US Citizen

Married, 2 children; resident of Flagstaff, Arizona for over 30 years

Languages: English, German, some French and Spanish

External interests: music (guitar, bluegrass mandolin), skiing, martial arts, hiking, travel, languages, Web design

**Summary:**

Over 35 years experience in astronomy and computing environments, including 21 years at universities

Currently responsible for email, Web, authentication, file sharing, backup and recovery, account maintenance,

OS and application software for 40+ Linux servers (most in virtualized environments) used by over 3,000

faculty and staff and 26,000 enrolled students; on call 24x7. Liaison with university faculty and staff, as well

as NAU Cline Library, on special projects.

Supervises 6-7 staff plus 6-8 student workers; responsible for an up to $100k annual budget

Knowledgeable about FERPA, system and network monitoring and logging, tcpdump, snoop and

other security tools and procedures; experience with law enforcement agencies and legal proceedings

Motivated, proactive, and attentive to the needs of organizations, as well as individuals

Interested in finding practical and sometime innovative solutions to a variety of problems, researching new

technologies and applications, long-range planning and project design.

**Contact:**

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