

# Trent H. Spoolstra

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available for local and 100% remote jobs domestic and international.

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## CAREER SUMMARY

Senior IT DevOps Software Engineer with over 34 years experience designing networks, servers, and security systems in heterogeneous environments.

## QUALIFICATIONS

- Wrote my first Basic program at the age of 6 on a C128.
- Created my first DOS boot management Batch file in 1987.
- I enjoy binge learning about, investigating, and building automation tools.
- I love automating repetitive tasks! (Check out my projects on GitHub <https://github.com/tspoolst>).
- 34+ years as an IT professional designing servers, networks, and control software.
- 30+ years firewall security management.
- 28+ years focusing on Linux/POSIX/Unix based systems.
- 19+ years managing network systems remotely from Chicago-IL to Aurora-IL, London, Moscow, Tokyo, Las Vegas, etc.
- 17+ years deploying OpenStack/AWS cloud server stacks using Custom tools, Webmin, Teamcity, Jenkins, Puppet, Chef, Ansible, Vagrant, and Docker.
- 1+ years developing Android user interfaces using Android Studio with Flutter/Dart.
- 1+ years studying Japanese. 1年以上に日本語を勉強しています。
- Advanced UNIX/POSIX knowledge - Owner of a custom LINUX distribution originally based on "Linux From Scratch".
- Extensive experience in heterogeneous environments (mixing MS-Windows with multiple UNIX flavors using Samba/LDAP/PAM (i.e. Linux/Solaris/Aix).
- Capable Project Management experience coordinating efforts between customers and internal stakeholders (marketing, sales, and customer service) using Scrum and "eXtreme programming" techniques.

## CERTIFICATIONS

- CNE - Certified Novell Engineer
- LA - Linux Advanced
- CCNA - Certified Cisco Network Administrator
- A+ - Certified
- MCP - Microsoft Certified Professional

## EXPERIENCE

**Continuing Studies, Rio Rancho, NM 01/2023 - present**

**Studying and building projects with:**

Unity, Godot, Android Studio, node.js, next.js, react, react-native, gdscrip, c-sharp, javascript, typescript, groovy, lua

- Building apps and web tools for simplifying the process of learning Japanese.
- Video processing with ffmpeg, shotcut, Aegisub/Gnome Subtitles
- Refining Docker containers for a standardized react development environment.

**Kaiser Permanente, Oakland, CA 08/2018 - 01/2023**

**Senior DevOps Systems Engineer**

Task based programming, Network Engineering, Security compliance auditing, High-Availability system design, Interface development.

- C-Sharp REST and SQL library code remediation.
- Building CI/CD (continuously integration/delivery) high-availability Skytap/AWS/Google/Azure cloud server stacks with (custom tools written in Bash, Groovy jobDSL, Python, Ruby, Java, and Javascript), Jenkins, Ansible, Puppet, Packer, Vagrant, Terraform, and Docker.
- Extending Vagrant Ruby libraries for interacting with the Skytap REST API.
- Migrating older scripted CI/CD builds to Jenkins/Kubernetes pipelines.
- Writing scripts to dynamically generate custom Dockerfiles via Make/M4 for image generation.
- Writing libraries for handling yaml and json conversions to/from different data formats.
- Managing development code on Github, Stash, DockerHub, Vagrant Cloud with Jira, Confluence, etc.
- Team building with regular Kanban and Kanboard Scrum meetings.
- Connecting real and virtual networks securely with OpenVPN and Nginx caching proxies.
- Management of HTTPS caching proxies (Nginx).
- Android development with Android Studio, Flutter, Dart, etc.

**Consulting - Deloitte and Touche, CBOE, Bank One,**

**various high freq trading companies, etc., Chicago, IL 10/2013 - 07/2018**

**Senior DevOps Systems Engineer**

Task based programming, Network Engineering, Security compliance auditing, High-Availability system design, Interface development.

- Building CI/CD (continuously integration/delivery) high-availability OpenStack/AWS/GCP cloud server stacks with Custom tools, Teamcity, Jenkins, Ansible, Puppet, Vagrant, and Docker.
- Engineering the migration of legacy bare metal and VMWare instances into public/private Clouds.
- Writing scripts to dynamically generate custom Dockerfiles for image generation.
- Building custom routers, firewalls, and VPN appliances using a combination of cisco, arista, debwrt, openwrt, ddwrt, openvpn, quagga, tinc, vnp.
- Creating distribution packages using Shell, Perl, Python, and Ruby.
- Administration/Integration of Linux, AIX, Solaris, and MS-Windows based systems using Samba, LDAP, and PAM.
- Managing Firewall rules per customer access requirements.
- Creating web front ends using Ruby on Rails for custom data mining apps.
- Designing and Customizing dial-plans for Asterisk pbx voip systems.

**Hard Eight Futures, Chicago, IL 01/2010 - 10/2013**

**Senior Network Engineer/Security Officer**

Task based programming, Network Engineering, Security compliance, High-Availability system design.

- Building high-availability OpenStack private cloud server stacks with Custom tools, Webmin, Puppet, and Chef.
- Building custom routers, firewalls, and VPN appliances using a combination of cisco, arista, juniper, debwrt, openwrt, ddwrt, openvpn, quagga, tinc, vnp.
- Integration of Linux and MS-Windows using Samba, LDAP, and PAM.
- Daily administration of Linux and MS-Windows based systems.
- Managing Firewall rules per customer access requirements.
- Designing and Customizing dial-plans for Asterisk pbx voip systems.
- Engineering of specialized programs:
  - To handle monthly Regulatory Backup onto ROM media.
  - To deploy and integrate our monitoring systems (Zabbix) with our VOIP phone system

- (Asterisk) for phone-based alerts.
- To dynamically configure core cisco and arista switches.
- Created a custom backup solution for providing continuous incremental snapshots via rsync, hard links, and other tools.

**FiServ, Chicago, IL 01/2006 - 01/2010**

**Lead Program Engineer**

Task based programming, Security compliance, High-Availability system design.

- Delegated task to project members for building financial processing systems
- Designed process flow architectures to comply with business rules and specific application features.
- Engineered programs for providing data transmission, user account management, and scheduling using Scrum and "eXtreme programming" techniques.
- Created the framework and core transmission code for a large-scale ETL (extract translate load) engine using a combination of Bash, Ksh, Perl, Python, Ruby, Java, WebMethods, Autosys, SSH, SSL, PGP, GPG, and many other tools.
- Invented a custom modeling tool for visualizing, creating, and monitoring Autosys scheduling jobs.
- Maintained daily administration of AIX, Solaris, Linux, and MS-Windows based systems.
- Created experimental builds of AIX and Linux systems for use as APL trade processing engines.
- Managed Firewall rules per customer access requirements.

**Innovative System Services, Chicago, IL 12/2000 - 02/2006**

**Team Manager/Systems Engineer/Security Specialist**

Full-time, clients included Chicago Public Schools, U.S. Gypsum, Qwest Communications, Motorola, ITT Fluid Technologies, and others.

- Created and Presented project plans to customers for network design, network enhancement, infrastructure documentation, and process automation.
- Provided necessary coordination of network/security contractors and subcontractors.
- Managed research and installation of Veritas High-Availability Cluster on SUN SPARC systems.
- Generated yearly Network Security Audits for specific customers.
- Engineered software tools per customer request for performing mass deployment, auditing, monitoring, bootup control, scheduling, database conversion, and ticket tracking.
- Directed Server Migration from Microsoft Windows NT 4.0 to Linux(Samba).
- Built mixed Email Systems comprising of Novell GroupWise 4.1-6.x, Sendmail 8.x, and Courier email systems.

**Chenoa Public Schools, Chenoa, IL 06/1996 - 05/2000**

**Network Engineer**

Contract, initial network setup, remote administration, and weekend maintenance.

- Designed and Remotely Administrated the Grade/High school CAN (Campus Area Network), comprising of Novell Netware 3.12/4.11 and Solaris servers.
- Managed a server migration project with a staff of 3 employees moving from Novell Netware 3.12 to 4.11.

**First Chicago, Chicago, IL 03/1998 - 02/1999**

**IT Specialist**

Contract, Programming DBA

- Built a custom HELPDESK ticket management database using MS-Access and MS-SQL

**Sentinel, Downer's Grove, IL 11/1995 - 03/1998**

## **IT Specialist**

Full-time, clients including TransUnion and CBOE (Chicago Board of Options Exchange).

- Server Management for multiple networked sites, comprising of Novell Netware 3.12 and Solaris.
- Design and Administration of Email Systems bridging GroupWise 4.1-6.x and Sendmail 8.x.
- Providing tutorial classes and level 2 support for a user base of more than 4000 using MS-Windows 3.x/95/NT4.0 workstations, AS/400, S/390, and HP Unix terminals.
- Printer Service/Repair - Hewlett Packard Laserjet printers.

**American Express, Normal, IL 11/1990 - 03/1994**

## **IT Specialist**

Contract, Network Administration

- Novell 3 and Lantastic network administration.

**TECHNICAL SKILLS SUMMARY** - extensive knowledge in all areas listed and more

### **PROGRAMMING:**

6806 Assembly, 8086 Assembly, Ansible, APL, BASH Bourne Shell script, Basic, C, C#, C++, COBOL, C-Sharp, DSL, gdscript, Groovy, HTML, Java, Java Script, KSH Korn Shell script, Lua, MS-DOS Batch script, Next.js, Node.js, Pascal, Perl, PHP, Power Shell script, Puppet, Python, Quick Basic, React, React-Native, Ruby, Ruby on Rails, SH Unix Shell, Tcl/Tk, TypeScript, Visual Basic, Visual C++, WebMethods, XML, Z80 Assembly

### **SOFTWARE:**

Apache Webserver, Autosys, Awk, AWS (Amazon Web Services), Bash, Bind, Bitbucket, Blue Ocean, BorderManager Proxy, CentOS, CheckPoint, Chef, Citrix Metaframe, Cloud, Confluence, Courier Email, CVS, Debian, DNS Bind8, Docker, E-Project, ffmpeg, Firewall, FreeBSD, Gauntlet Firewall, GCP (Google Cloud Platform), Gentoo, Git, Godot, GPG, GroupWise 5.x-6.x, HP-UX 10.x, IBM AIX 4.x-6.x, IIS 3-5, iptables, Jenkins, Jira, kernel KVM, Knoppix, KSH, Kubernetes, Linux From Scratch, Linux IPfilter (Firewall), Linux Redhat/Trustix, Lotus Notes 4.x-6.x, Mandrake, MS-DOS 3.x-7.x, MS-Office 97-, MS-Windows 3.0-4.x(98)/NT4.0/2000/XP/7/8, MySQL, Nagios, Nexus Repository, Novell Netware 3.0-5.x, OpenStack, Oracle, OS/2 Warp, OS-390, PGP, PIX Firewall, Postfix, PostgreSQL, Puppet, Qemu, Qmail, Raptor Firewall 6.5.0, Redhat, Redmine, Samba File Server 2.2.x, Sendmail 8.x, Service Center Peragraine, Shotcut, Slackware, Solaris 2.6-8.x, Solaris Containers, Stellent Content Server, Subversion, Suse, Teamcity, Tinc, Tomcat, Ubuntu, Vagrant, VCS Cluster, Veritas, VMWare, WebMethods, Webmin, Webserver - Apache, Xen, Zabbix, Zenworks 1.1-2

### **PROTOCOLS:**

3DES, CDP, DHCP, DNS, DSL, EIGRP, ESMTP, ETHERNET, FRAME RELAY, FTP, FTPS, H323, HDLC, HTTP, HTTPS, IAX, IGRP, IMAP4, IPSEC, IPX/SPX, ISCSI, ISDN, LESS, NCP, NDM, NETBIOS, NFS, NTP, POP3, PPPoE, RDP, REST, RIP, RTP, SAN, SCP, SFTP, SHTTP(SSL), SIP, SMTP(EMAIL), SNMP, SPLIT-T, SSH, TCP/IP, TOKEN RING, VOIP, VPN

### **HARDWARE:**

EMC-CLARiiON, Intel Systems (Compaq, Dell, Gateway, HP, IBM), Linterm, Routers & Switches (3COM, Arista, Bay, Cisco7500/4500/2500/etc., FlowPoint, Juniper, Nortel, SonicWall, Tiara 4000/6000, Buffalo), SUN SPARC Servers, UNIX remote boot terminals, Winterm, Wyse