KEVIN L. SHORT

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PROFESSIONAL OBJECTIVE

Seeking a Site Reliability Engineering, DevOps, Software Development, or Automation position in a senior role.
Proven track record of building highly available, scalable, and robust software systems. Brought start-up and early stage projects to successful, timely completion. Defined software, automation, and operational architectures, software engineering processes, built engineering teams and labs, performed initial hardware/software bring-up.

BACKGROUND SUMMARY

- AWS Certified DevOps Engineer - Professional Level
- AWS Certified Solutions Architect - Associate Level
- AWS Certified SysOps Administrator - Associate Level
- AWS Certified Developer - Associate Level
- Certified OpenStack Administrator
- Internet scale deployment, operation, and monitoring, for Cloud and physical servers.
- DevOps and Automation of software development: Continuous Delivery, Integration, Deployment, and Improvement.
- Full Stack developer, experienced in Agile, Iterative, and Waterfall software development processes.
- Expert level: C, C++, Java, Ruby, Python, Perl, Tcl/Tk, Expect, Bash, and AWK.
- Expert level: Linux (Ubuntu, Debian, CentOS, Red Hat), BSD (Mac OS X, FreeBSD, NetBSD, OpenBSD), and System V UNIX (Solaris, AIX, HP-UX).
- High-performance, concurrent, multi-threaded, "hard" real-time and embedded systems.
- Network programming and network management systems.
- Excellent debugging and troubleshooting skills.
- Excellent communication skills and technical leadership experience.
- Over 40 years' commercial software development experience. BA in Computer Science.

BACKGROUND HIGHLIGHTS

Cloud Computing • DevOps • Automation • Site Reliability • Full Stack • Embedded Systems • Real-Time Systems • SNMP • Network Management Systems • Java Technologies • Object-Oriented Design & Analysis • Voice over IP • Optical Networking • Robotics • XML Technologies

PROFESSIONAL EXPERIENCE

Senior Engineer (Site Reliability Engineer): NS1., New York, NY. (Jan 2021 – May 2021)

- Sole SRE responsibility for NS1's Monitoring products and infrastructure. Daily experience writing and troubleshooting Ansible, Terraform, Python, Golang, and Bash. Built Infrastructure-as-Code (IaC) with Ansible for deployment of Docker-ized components across core and 26 edge regions. Built IaC with Ansible, Terraform, and Hashicorp Nomad for deployment of Staging and Product Soak environments. This resulted in improved repeatability, cycle times, and reliability of our operational environment. Participated in On-Call Rotation, frequent Off-Hours Issue Resolution, and daily War Rooms.
- Skills: Ansible, Terraform, Python, Go, Bash; Cloud: AWS, Digital Ocean; Linux: Ubuntu; Containers and VM: Docker, docker-compose, Vagrant; Data and Messaging: MongoDB, Redis, RabbitMQ; SCM: GitHub.

Cloud Infrastructure Engineer IV: Ultimate Kronos Group, Inc., Weston, FL & Lowell, MA. (Oct 2020 – Jan 2021)

- Ultimate Software and Kronos merged, forming Ultimate Kronos Group (UKG).

Cloud Infrastructure Engineer IV: Ultimate Software Group, Inc., Weston, FL. (Aug 2019 – Oct 2020)

- Developed Infrastructure-as-Code (IaC) for multiple data centers and fabrics running self-hosted OpenStack on Red Hat OpenStack Platform (OSP13) and Rackspace Private Cloud (RPC) distributions. Almost daily experience writing and

troubleshooting Ansible, Terraform, Python, Go, Ruby, Expect/Tcl, Awk, and Bash. As a member of the Ultimate Cloud Infrastructure-as-a-Service team: performed daily operational tasks for site and hardware expansions and moves, troubleshooting and remediation. Built automation for deployment of Red Hat OSP13 fabrics in production, development, and lab environments. This resulted in improved repeatability, cycle times, and reliability of our fabrics. Automated the live migration of (Cinder) storage volume types across availability zones. Fixed bugs in vendor-supplied and Open Source drivers (Python) and Docker containers; contributed back to Open Source Software (OSS) projects; and patched our local fabrics. Participated in On-Call Rotation, frequent Off-Hours Issue Resolution, and War Rooms.

- Skills: Ansible, Terraform, Python, Go, Ruby, Expect/Tcl, Awk, Bash; OpenStack: Red Hat OSP (OpenStack Platform), Rackspace Private Cloud; Linux: RHEL, Ubuntu; Docker, KVM, LXC; Cinder: Datera, NetApp/SolidFire, HPE/Lefthand; Git, Bitbucket, GitLab; Foreman, Sensu, PowerDNS, InfoBlox;

Principal DevOps Engineer (Test Lead): Tech Mahindra (Americas) Inc., Plano, TX. (Jul 2019 – Aug 2019)

- This was a short-term information-transfer position as Rackspace outsourced several teams to Tech Mahindra. We showed their staff how to perform our jobs.

Principal DevOps Engineer (SDET-V): Rackspace US, Inc., San Antonio, TX. (Jun 2017 – Aug 2019)

- Lead for DevOps, Ansible, Terraform, Docker, and Jenkins automation, for CI/CD pipeline related to multi-cloud operations and migration tooling.
- Lead for Rackspace Private Cloud on OpenStack and Red Hat OpenStack Platform products; for Multi-Cloud products; and for Bare-metal products.
- Remote WFH (work from home) Racker.
- Skills: Kubernetes, OpenShift, OpenStack and Rackspace APIs, Amazon Web Services, Serverless, Docker, Ansible, Terraform, Jenkins CI, Jenkins Job Builder, Groovy, Jira, GitHub, Slack, Confluence, Vagrant, VirtualBox, Xen, Docker, Python, Ruby, Bash, AWK, Tcl, Expect, YAML, JSON, REST, MySQL, Mac OS X, Ubuntu Linux, Red Hat Enterprise Linux, CentOS Linux, FreeBSD.

Senior Lead DevOps Engineer (SDET-IV): Rackspace US, Inc., San Antonio, TX. (Nov 2015 – Jun 2018)

- Embedded with the Cloud Networks Data Plane and Control Plane teams, building Quality Engineering subsystems and tests for OpenStack Nova Networks, Neutron, and Quark, and Rackspace SDN, at the data plane through API levels.
- Active Technical Contributor (ATC) for OpenStack Foundation.
- Keynote Speaker at RAX.IO 2017
- Core member of Open Source projects: OpenCAFE, CloudCAFE, and CloudRoast (Python) test frameworks for testing cloud products, including OpenStack.
- Lead SDET for Floating IP and Shared IP subsystems: built tests for same, including advanced testing for usage tracking, subsystem functionality, and management API.
- Built High Availability (HA) environments for testing Shared IP subsystem, using Pacemaker with Corosync, and keepalived with HAProxy; plus Ansible.
- Performed troubleshooting for OpenStack Compute, Xen, and tap network interfaces.
- Remote WFH (work from home) Racker.
- Skills: Kubernetes, OpenShift, S2I (Source-to-Image), Helm, OpenStack and Rackspace APIs, Amazon Web Services, Microsoft Azure, Docker, Ansible, Terraform, Chef, Jenkins CI, Jenkins Job Builder, Groovy, Jira, Redmine, GitHub, Gerrit, Slack, Confluence, Vagrant, VirtualBox, Xen, Docker, Python, Ruby, Bash, AWK, Tcl, Expect, YAML, JSON, REST, Pacemaker, Corosync, keepalived, HAProxy, MySQL, RabbitMQ, Mac OS X, Ubuntu Linux, Red Hat Enterprise Linux, CentOS Linux, FreeBSD.

DevOps Enchanter / Senior Software Engineer: Conjur, Inc., Waltham, MA. (Aug 2015 – Sep 2015)

- Building security orchestration software to manage, enforce and audit infrastructure applications with modern IT systems.
- Cloud-Native Directory, Authorization, Audit, and Compliance Software. Built for DevOps teams and their entire infrastructure.
- Skills: Amazon Web Services, Docker, Cloud Foundry, Microsoft Azure, OpenStack, Chef, Ansible, Puppet, SaltStack, Rundeck, Jenkins, GitHub, Vagrant, Terraform, VirtualBox, Ruby, Python, Perl, Bash, AWK, Tcl, Expect, Go, Java, C/C++, OpenSSL, OpenSSH, Mac OS X, Ubuntu Linux, Red Hat Enterprise Linux, CentOS Linux.

Principal Automation Engineer: Dyn (Dynamic Network Services, Inc.), Manchester, NH. (Nov 2014 – Jul 2015)

- Evolving a DevOps culture, breaking down silos between Development, Operations, and separate DevOps teams.
- Defining the engineering and operations road maps for Automation and related development and infrastructure projects.
- Instituting processes of Continuous Delivery, Integration, Deployment, and Improvement.
- Architecture and system design for Automation and infrastructure-as-code for Development, Integration, Staging, and Production.
- Self-service provisioning for bare metal, virtual machines, and containers, in a hybrid cloud of data centers and AWS EC2.
- Metal as a Service bare metal automated provisioning solutions, deploying hundreds of servers across sites.
- Skills: AWS, EC2, Chef, Ansible, Rundeck, KVM, Docker, Vagrant, Terraform, OpenStack, Ruby, Python, Perl, Bash, AWK, Go, Java, C/C++, Makefiles, Cobbler, Jenkins, GitHub Enterprise, Chef Enterprise, Ubuntu, Debian, CentOS, FreeBSD.

Manager, Automation Engineering: Dyn, Manchester, NH. (Apr 2014 – Nov 2014)

- Managed rapid growth within Engineering, growing from 20 to 100 members over an 18-month period.
- Hands-on position, working side-by-side with colleagues on implementing automation.
- Served multiple roles: manager, as scrum master, and technical owner for Agile squads.
- Skills: Chef, Docker, Rundeck, Ansible, KVM, Ruby, Python, Perl, Bash, AWK, Go, Java, C/C++, Makefiles, Cobbler, Jenkins, Makefiles, GitHub Enterprise, Chef Enterprise, Ubuntu, Debian, FreeBSD.

Manager, Platform Engineering: Dyn, Manchester, NH. (Oct 2013 – Apr 2014)

- Managed development, testing, fully automated deployment and monitoring of DNS services to new China Network.
- Manager in a matrix organization, scrum master, and technical owner for an Agile squad.
- Lead design of Development, Integration, Staging, and Production environments.
- Lead design of Continuous Integration pipeline and Automated Testing framework.
- Built local and mirrored Ubuntu repositories.

DevOps & Tools Engineer: Dyn, Manchester, NH. (Feb 2013 – Oct 2013)

- Built Dyn's first automated application deployment using Chef, and package delivery using Debian (.deb) packaging.
- Debian packaging for C++, Java, Go, Python, Perl, and Node.js applications.
- Chef installers for Cassandra and MySQL databases, and Dyn traffic management (DNS) applications.
- Skills: Chef, Berkshelf, Vagrant, Debian pbuilder, Makefiles, VirtualBox, VMware ESXi/vCenter, Cassandra, MySQL, Ubuntu.

Senior Software Engineer: Coyote Point Systems, Millerton, NY. (Nov 2011 – Dec 2012)

- Application Delivery Controllers: Network load balancing and global server load balancing products, on physical and virtual systems.
- Responsible for: L3 (ICMP), L4 (TCP/UDP), L7 (active content verification) monitoring, and server load balancing subsystems.
- New feature design and development included: health checking and load balancing features that interacted with server side agents, VMware ESXi hypervisor, and SNMP agents.
- Shared responsibility for: disaster recovery and fail-over: active/passive, active/active, and N+1 configurations; and configuration management.
- Built the NetBSD-based products using cross-compilation on Mac OS X.
- Skills: C, assembler, Tcl, Python, Perl; NetBSD, Mac OS X, FreeBSD, Linux; VMware ESXi, vSphere, and Fusion; Net-SNMP, OpenSSL, pfSense, DNS, Doxygen, Eclipse, Perforce, Bugzilla, Intel x86.

Consultant: Proliphix, Westford, MA. (Sep 2011 – Nov 2011)

- Internet-managed energy control system (IP thermostat, HVAC, and building control), running embedded Linux and embedded Java on ARM processors.
- Responsible for updating entire platform: energy control application and features, Linux kernel, driver development, embedded database, RFS, U-boot, and boot ROM.
- Skills: Java, C, assembler, Perl; Timesys Linux; Eclipse, Jira, Mercurial, CruiseControl, Atmel ARM.

Principal Software Engineer: Lantiq Broadband HoldCo Inc., Bedford, MA. (Apr 2011 – Sep 2011)

- System-on-Chip (SoC) software for a G.HN Home Networking protocol engine, running embedded Linux and ThreadX RTOS on MIPS virtual processing engines.

- Responsible for Linux kernel porting (2.6.32); driver development; U-boot; and boot ROM.
- Stabilized the board support package (BSP) software development team by: establishing source code management disciplines; standardizing software release procedures; preparing and tracking software schedules; coordinating efforts with multiple sites; implementing defect and project milestone tracking; and implementing a continuous integration environment.
- Skills: C, C++, assembler, Tcl/Tk, Expect, ThreadX, Eclipse, Jira, Mercurial, CruiseControl, MIPS34Kc.

Consultant: Constitution Medical, Inc., Boston, MA. (Jan 2011 – Apr 2011)

- User interface components in Java for an integrated hematology instrument.
- Skills: Java, Eclipse, Jira, FogBugz, Mercurial.

Technical Director, Consulting Software Engineer, Principal Software Engineer: Cedar Point Communications, Inc., Derry, NH. (Apr 2005 – Apr 2011)

- VoIP software subsystems for embedded platforms in C and assembler.
- IMS software subsystems for off-the-shelf servers, in Java.
- Debugging, troubleshooting, and performance analysis for Voice over IP products.
- IP Multimedia Subsystem (IMS) and PacketCable 2.0 lab and development environment.
- Proactively isolated performance issues for our products and our development environment, and provided timely support of development and test teams, working closely with software and hardware developers, on both embedded systems and EMS.
- Skills: Java, C, Python, Perl, Tcl/Tk, Expect, Enea OSE, Solaris, CentOS.

Consultant: Quintron Systems, Inc., Santa Maria, CA. (Dec 2004 – Apr 2005)

- Java code integrating Facial Biometric Devices for an Access-Control System. Plug-in modules supporting distributed facial biometric devices. Implemented use cases for subject enrollment, standalone identification, and verification in conjunction with card readers.
- Skills: Java, SWT/JFace, Hibernate, HSQLDB, SQLServer, Eclipse, JUnit, Apache Ant, Apache Log4j.

Consultant: Cellular Specialties, Inc., Manchester, NH. (Dec 2004 – Apr 2005)

- Embedded software for a Digital Repeater (Bi-Directional Amplifier) for in-building wireless solutions. SNMP MIB and agent; event reporting protocol; inter-process communication, command line interpreter; low-level hardware interfaces for SPI, I2C, PCMCIA, USB, A/D, digital I/O.
- Introduced software engineering practices; source code control; software defect management; software life cycle management; mentored team members.
- Skills: C, Perl, SNMP, Tcl, Expect, Embedded Linux.

Consultant: Envisn, Incorporated, Bolton, MA. (May 2004 – Sep 2004)

- Framework for integrating new applications with the Cognos ReportNet Enterprise Business Intelligence (BI) product. The solution comprised servlets, XML, XSLT, JavaScript, DHTML and the ReportNet Java SDK, for improved data exploration and integration with Cognos Connection, Report Studio and Query Studio.
- Skills: Java, J2EE, J2SE, Servlets, JSPs, SOAP, WSDL4j, Cognos ReportNet, XML.

Principal Software Engineer: Brightline Technology, Incorporated, Rye, NH. (Apr 2003 – Mar 2004)

- Architect for an enterprise-quality Java application server for IBM/Lotus Domino customers.
- The "Brightline Application Server - Enterprise Edition" allows customers to host existing J2EE applications in a Domino environment, scale Domino-based web applications through J2EE technologies, add Notes and Domino functionality to J2EE applications, add J2EE functionality to Notes and Domino applications, and use the Domino security model in J2EE applications.
- The server technology includes an extensible software backbone that provides all standard J2EE services to Domino, administration and deployment tools for managing J2EE servers and applications from either a Notes Admin client or web browser, and a fully transactional, enterprise-ready data store to complement NSF (Notes Storage Facility).
- Skills: Java, JavaScript, SSH & OpenSSH, LDAPv3, XML, Red Hat Linux, SuSE Linux, JBoss, Lotus Domino & Notes.

Consultant: Confluent Photonics Corporation , Salem, NH. (Aug 2003 – Feb 2004)

- Lightchip RAM-20-200-PSM/PSD Rack Mountable Intelligent 200 GHz DWDM Mux/Demux. The monitoring and control features include optical power detection, traffic-direction LEDs, visual alarms, and craft interface that provides access to the unit's identification data. The product is a bi-directional dense wavelength division multiplexer (DWDM) with power loss detection on the primary fiber that can trigger alarm LEDs and relays. Integrated power taps allow monitoring of incoming and outgoing signals in the primary fiber.
- Skills: C

Software Director, Optical Wavelength Management Group, Network Management Systems: Digital Lightwave, Incorporated , North Chelmsford, MA. (Oct 1999 – Apr 2003)

Manager, Software Quality & Infrastructure, Systems Engineering Group: Lightchip, Incorporated, Salem, NH. (Oct 1999 – Apr 2003)

- Software Quality Assurance: Responsible for defining SQA needs, implementing a lab environment for testing multiple products, platforms and releases using a collection of highly configurable optical instruments, GPIB instruments and network interfaces. The SQA Lab was a showcase and was considered an essential stop when showing customers our product and engineering capabilities.
- Release Engineering: Responsible for all source code control, release engineering, builds and DCOs.

Principal Software Engineer: Lightchip, Incorporated, Salem, NH. (Oct 1999 – Apr 2003)

- Software architect for the Optical Wavelength Manager (OWM), utilizing StrongARM processors running VxWorks. The OWM monitors power, wavelength and signal-to-noise ratio for multiple channels on dense wavelength division multiplexed networks with programmable alarm thresholds and data logging. Configuration is done remotely or locally through a command line interface (telnet and RS232), SNMP, TL1 and/or Java based graphical user interface.
- Board Support Package for two StrongARM processor boards, using logic analyzers to debug assembler and "C" source code. Worked with technologists at Intel and Wind River to resolve problems encountered with early releases of silicon.
- Comprehensive SNMPv1/v2c MIB for the OWM, including device traps, advanced row creation features, and integration with OEM customers' existing enterprise MIB trees. This MIB was advertised as "the world's first Optical MIB".
- Java GUI for the OWM; a patent application was filed for the GUI.
- Evaluated and selected real-time operating systems, prototype hardware systems and software development tools for bleeding-edge target (Intel StrongARM processor) hardware.
- Skills: Java, C, Perl, SNMPv1/v2c, VxWorks, Linux, FreeBSD, Solaris.

Principal Software Engineer, Alcatel Internetworking, Voice Over IP: Alcatel Internetworking , Salem, NH. (Aug 1998 – Sep 1999)

- Principal architect for a Voice over IP Gateway for the Enterprise market. The VoIP Gateway supported digital (T1/E1) and analog interfaces. A typical configuration would connect to one or more PBXs to the PSTN and to an enterprise network. Capabilities included fax relay, modem, voice and data.
- Integrated software components for the VoIP blade into existing Alcatel switches.
- VoIP configuration interfaces for signaling, coding, network, dialing plan and hardware.
- Selected and purchased software development tools, telephony products and test equipment.
- Performed system and network administration for a Sun 450 Enterprise Server in the Salem, NH office. Installed and configured development tools and coordinated the build process with teams in Calabasas, CA.
- Coordinated development between teams in the U.S. and Alcatel headquarters in Colombes, France, building an IP-based PBX and other packetized voice products.
- Advised Network Management development team on Java design topics.
- Skills: Java, C, H.323, Q.921/LAPD, Q.931/Call Control, RTP, RTCP, VxWorks.

Principal Software Engineer / Software Systems Architect: NBX Corporation , Andover, MA. (May 1997 – Jul 1998)

- System software architecture for an Ethernet based telephone system (NBX 100) with high performance telephony, messaging, and computer integration via a single infrastructure. The NBX system provided a voice and data management platform merging packetized audio with an Ethernet LAN.
- Object-oriented architectures for Call Processing, Voice Mail, Automated Attendant, TAPI Service Provider, Web-based System Administration, and system services layers.

- Selected software tools and components for product development and deployment, including embedded real-time operating systems and object-oriented software development tools.
- Reliable messaging protocols for system controller and DSP-based telephony devices.
- Pioneered development from ObjecTime models to Windows NT (Microsoft Visual C++) simulation environment and Tornado/VxWorks (Cygnus GNU C++) target environment.
- Skills: Java, C/C++, ObjecTime, ROOM (Real-Time Object-Oriented Modeling), Tornado/VxWorks.

Technical Lead, Advanced Systems, New Technologies & Software Engineering Teams: Oxford Health Plans, Incorporated, Trumbull, CT. (Jun 1995 – Apr 1997)

- Intranet and Internet applications and infrastructure.
- Skills: Java, JavaScript, Perl5, Tcl, Expect, C/C++, Solaris, AIX, HP-UX, Oracle.

Consultant: Quaker Farms Research, Southbury, CT. (Jun 1995 – Dec 1995)

- Projects: Telephone Key System. Embedded system software.
- System and network security, configuration and administration; Internet, DNS & PPP configuration.
- Skills: C, Perl5, assembler & M68K; SunOS, WinNT; DNS, PPP, NFS, NIS, automounter.

Consultant: General DataComm Incorporated, Middlebury, CT. (Oct 1992 – Jun 1995)

- Project: HP OpenView for SunOS & HP-UX, IBM NetView for AIX.
- Skills: C, C++, Perl5, Tcl, Expect; SunOS, AIX, HP-UX, Solaris; SNMP, TCP/IP, RPC, XView, CVS, Informix.

Consultant: Data Switch Corporation , Shelton, CT. (Apr 1990 – May 1994)

- Project: Network Element Management & Control Systems.
- Skills: C, PL/M, Perl4, Tcl, Expect; SunOS; TCP/IP, RPC, NFS, NIS, Automounter, X11, XView.

Consultant: IBM T.J. Watson Research Center, Eastview, NY. (Jul 1990 – Aug 1991)

- Project: Servo Controller for a 12-Axis Robotics System; this was a "hard" real-time system.
- Skills: C, assembler, INMOS Transputer; AIX RS/6000, DOS, OS/2; TCP/IP, NFS, X11, VM/CMS.

Consultant: JANUS Systems, Incorporated, New York, NY. (Feb 1990 – Apr 1990)

- Project: Total Integrated Graphics and Retrieval (TIGER) system for Ameritech Publishing, Inc.
- Skills: C; SunOS 3.5; Sun Tools; SunView; DEC VAX/VMS; RPC, NFS, Automounter.

Consultant: General DataComm Incorporated, Middlebury, CT. (Jul 1988 – Dec 1989)

- Project: Integrated Network Management System: AT&T Accumaster Protocol interface for INMS.
- Project: NetView/PC Alarm Reporting Interface for IBM SNA and multiplexor control system.
- Skills: C, assembler; SCO XENIX & device drivers; IBM NetView/PC; IBM SNA protocols; Informix.

Consultant: IBM T.J. Watson Research Center, Yorktown Heights, NY. (Aug 1987 – Jun 1988)

- Projects: Robotic Fine Positioning Device. Distributed Robotics Communications. Digital Signal Processor Interface for Robotics.
- Skills: C, assembler; Masscomp RTU & device drivers; VMEbus, Multibus, PC/AT bus.

Consultant: Telecomp, Incorporated , Milford, CT. (Oct 1986 – Aug 1987)

- Project: Point-Of-Sale System for Auto Parts Dealers.
- Skills: C, assembler; NCR UNIX; SCO XENIX; Motorola 68000; Intel 80286.

Consultant: Pitney Bowes, Norwalk, CT. (Oct 1986 – Jan 1987)

- Project: Manifest Mailing System.
- Skills: C, assembler, FORTRAN; SCO XENIX; MS-DOS; DES encryption devices.

Consultant: IBM T.J. Watson Research Center, Yorktown Heights, NY. (Jun 1985 – Sep 1986)

- Project: General Purpose Automation Controller & Programming System.
- Skills: C, assembler; Masscomp RTU & device drivers; Motorola 68020; Multibus, RCS, VM/CMS.

Consultant: Digitech Industries, Incorporated, Ridgefield, CT. (Aug 1984 – Jul 1985)

- Project: Network Protocol Analyzer. Event programming language for embedded real-time system.
- Skills: C, assembler; MS-DOS, CP/M-68K; Motorola 68000; VMEbus, protocol analyzers.

Consultant: Telecomp, Incorporated , Milford, CT. (May 1984 – Nov 1984)

- Project: Point-Of-Sale System for Auto Parts Dealers.
- Skills: C, assembler, NCR UNIX.

Senior Software Engineer: Dictaphone Corporation, Norwalk, CT. (Mar 1982 – Apr 1984)

- Projects: Digital Voice Operating System. Dictation Control and Management System.
- Skills: C, PL/M & assembler; UNIX V6, V7, System III on DEC PDP-11 and VAX; Intel 8085, SCCS.

Vice President, Consulting Services: InfoSoft Systems, Incorporated, Westport, CT. (Jul 1978 – Mar 1982)

Consultant: Control Process, Incorporated, Plantsville, CT. (Jul 1978 – Mar 1982)

- Projects: Embedded process control systems.
- Skills: C, assembler, Zilog Z80, CP/M; DEC RSX-11S/M; Data General Nova/Eclipse RDOS.

Consultant: Learning Unlimited, New Canaan, CT & Research Triangle Park, NC. (Jul 1978 – Mar 1982)

- Project: Prescription-based Learning System.
- Skills: FORTRAN, PL/1, assembler; Data General Nova/Eclipse RDOS; IBM TSO, OS & DOS.

Consultant: Sales Maids of America division of GELCO, Southport, CT. (Jul 1978 – Mar 1982)

- Projects: Payroll System. Point-Of-Sale Data Collection System.
- Skills: COBOL; Data General Nova/Eclipse RDOS & ICOS.

Consultant: PR Data Systems, Wilton, CT. (Jul 1978 – Mar 1982)

- Projects: Press Release Distribution System. Mailing List Maintenance System.
- Skills: COBOL; Data General Nova/Eclipse RDOS & ICOS.

Consultant: Mnemonics Incorporated, Norwalk, CT. (Jul 1978 – Mar 1982)

- Project: Market Tabulation System.
- Skills: FORTRAN, PL/1; Data General Nova/Eclipse RDOS.

EDUCATION

Bachelor of Arts in Computer Science: Indiana University, Bloomington, IN. (Sep 1975 – May 1978)

PROFESSIONAL CERTIFICATION

AWS Certified DevOps Engineer - Professional Level / AWS: AWS-PDOE-1447 • AWS Certified Solutions Architect - Associate Level / AWS: AWS-ASA-26486 • AWS Certified SysOps Administrator - Associate Level / AWS: AWS-ASOA-5593 • AWS Certified Developer - Associate Level / AWS: AWS-ADEV-5875 • Certified OpenStack Administrator / OpenStack: COA-1600-0240-0100 • Sun Certified Java Developer (SCJD) • Sun Certified Java Programmer (SCJP)

PATENTS

Recording and Dictation System, United States 4621350, Issued November 4, 1986

PROFESSIONAL ASSOCIATIONS

USENIX Association • League of Professional System Administrators (formerly SAGE)

TECHNICAL SEMINARS

Linux Academy: AWS Certified DevOps Engineer - Professional Level; AWS Certified Solutions Architect - Associate Level; AWS Certified SysOps Administrator - Associate Level; AWS Certified Developer - Associate Level; Docker And Elastic Beanstalk; DevOps Essentials; AWS Concepts; Linux Essentials Certification

HONORS AND AWARDS

Cornell Society of Engineers "Ingenuity in Science and Mathematics Award," 1976.

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Go, Ruby, Python, Perl, Tcl/Tk, Expect, AWK, yacc & lex, assembly languages.

Professional Certification: AWS Certified DevOps Engineer - Professional Level / AWS: AWS-PDOE-1447, AWS Certified Solutions Architect - Associate Level / AWS: AWS-ASA-26486, AWS Certified SysOps Administrator - Associate Level / AWS: AWS-ASOA-5593, AWS Certified Developer - Associate / AWS: AWS-ADEV-5875, Certified OpenStack Administrator / OpenStack: COA-1600-0240-0100, Sun Certified Java Developer (SCJD), Sun Certified Java Programmer (SCJP).

Config Management: Chef, Vagrant, Berkshelf, Ansible, Terraform, Terraform, Nomad, Rundeck, CFEngine.

Virtualization: Docker (containers), Xen, KVM (kernel-based virtual machines), VirtualBox, VMware ESXi.

Cloud Computing: Rackspace, OpenStack, Amazon Web Services -- Compute: EC2, EC2 Container Service, Elastic Beanstalk, Lambda; Storage & Content Delivery: S3, CloudFront, Elastic File System, Glacier; Database: RDS, DynamoDB, ElastiCache, Redshift; Networking: VPC, Route 53; Management Tools: CloudWatch, CloudFormation, CloudTrail, Config, OpsWorks, Service Catalog; Security & Identity: IAM, Certificate Manager; Analytics: EMR, Data Pipeline, Elasticsearch Service, Kinesis; Mobile Services: SNS; Application Services: SES, SQS, SWF .

Release Engineering: GitHub Enterprise, GitHub, Apache Subversion, Perforce, Mercurial, IBM Rational ClearCase, Concurrent Versions System (CVS).

Operating Systems: Ubuntu Linux, Debian Linux, CentOS Linux, Scientific Linux, FreeBSD, NetBSD, Red Hat Enterprise Linux, Fedora Linux, Embedded Linux, SuSE Linux, Sun Solaris, ExpressLogic ThreadX, Enea OSE, Wind River VxWorks, IBM AIX, HP HP-UX, Microsoft Windows.

Message Queuing: RabbitMQ.

Database Engines: MongoDB, Redis, Apache Cassandra, PostgreSQL, MySQL, Microsoft SQL Server, Hypersonic SQL, PostgreSQL, Oracle, IBM Informix, IBM DB2.

Network Management: SNMP MIB design & agent development, SNMP verification, HP OpenView, IBM Tivoli NetView.

Network Routing: Juniper JunOS, pfSense, Cisco IOS, SonicWall Firewalls, LACP, BFD, OSPF.

Network Protocols: TCP/IP, UDP/IP, Socket Programming, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Simple Network Management Protocol (SNMP), Secure Shell (SSH) & OpenSSH, Secure Sockets Layer (SSL) & OpenSSL, Lightweight Directory Access Protocol (LDAPv3), Simple Mail Transfer Protocol (SMTP), Internet Message Access Protocol (IMAP), Simple Network Time Protocol (SNTP), Voice over IP (VoIP), IP Multimedia Subsystem (IMS), PacketCable 2.0, Media Gateway Control Protocol (MGCP), Network-Based Call Signaling (NCS), Session Initiation Protocol (SIP), Signaling System #7 (SS7), Point-to-Point Protocol (PPP), ISDN Q.921/LAPD, ISDN Q.931/Call Control, High-level Data Link Control (HDLC), IEEE 802.2 Logical Link Control (LLC), IEEE 802.3 CSMA/CD (Ethernet), X11 Window System, Network Information Service (NIS).

Web Services & Content: nginx, Apache HTTP Server, HyperText Transfer Protocol (HTTP), XML-RPC, HyperText Markup Language (HTML), Cascading Style Sheets (CSS).

Web Performance & QA: JUnit4, HttpUnit, Apache JMeter, Apache Cactus, ECPerf, JUnitEE, TagUnit, Apache Watchdog.

Java Technologies: Apache Ant, Eclipse, Hibernate, XDoclet, Apache Log4j, Java Management Extensions (JMX), Java Service Wrapper (JSW).

Java Web Services: JBoss, Apache Tomcat, Java Servlets, Java Server Pages (JSP), Java Server Pages Standard Tag Library (JSTL), Java API for XML Processing (JAXP).

Java 2 Standard Edition: Java Naming and Directory Interface (JNDI), Java Database Connectivity (JDBC), Java Authentication & Authorization Service (JAAS), Java Cryptography Extension (JCE), Java Foundation Classes (JFC/Swing), Java IDL, Java Remote Method Invocation (RMI), JavaBeans Activation Framework (JAF), JavaBeans Component API, Abstract Window Toolkit (AWT).

Object-Oriented Tools: IBM Rational Rose RealTime, Real-time Object-Oriented Modeling (ROOM).

Defect Tracking: Jira Issue Management, IBM Rational ClearQuest, Bugzilla, Jive Forums.

Other Tools: Adobe FrameMaker, DejaGnu, ZeroG InstallAnywhere.

Other Languages: PostScript, PL/M, FORTRAN, COBOL, PL/1, Pascal, LISP, BASIC.

Microprocessors: Intel x86, Atmel SAM9G (ARM), MIPS32, Freescale MPC8548, Freescale MPC7410, Intel StrongARM, Freescale MPC860, Freescale MC680X0, Sun SPARC, Zilog 80180, Intel 8051.