

CHRIS SCHOPPY

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OBJECTIVE

High-energy technology professional and entrepreneur seeking a technology infrastructure management role. My skill set includes a combination of infrastructure management and hands-on experience with a variety of technologies. I am seeking a fast-paced and progressive working environment that will enable me to use the wide range of technologies that I have mastered over the past 30 years of my IT career.

EXPERIENCE

Triangle Cloud Consulting, Inc.

President & CEO / Cloud DevOps Engineer | September 2013 to Present

- Developed and maintained CI/CD pipelines using Azure DevOps for seamless integration and deployment of applications on Azure.
- Managed infrastructure with Terraform and Bicep, ensuring consistency across environments and reducing/eliminating manual provisioning efforts on Azure.
- Deployed and managed containerized applications using Docker and Kubernetes on Azure Kubernetes Service (AKS), enhancing scalability and reliability while improving the overall development lifecycle of various software environments.
- Enforced security best practices in Azure DevOps CI/CD pipelines, including secret management, vulnerability scanning, and compliance checks.
- Automated routine Azure tasks and processes using PowerShell and Python scripts.
- Experienced with deployment and management of advanced Azure VNet and Transit VNet configurations for both cloud resources and On-Premises datacenters and physical sites. Configuration and management of Azure ExpressRoute direct connections and IPSec tunnels between Azure and physical sites and datacenters using both static and BGP routing protocols.
- Deployment of multi-subscription Azure tenants consisting of using Management Group-> Subscription-> Resource Group hierarchy for organizational segmentation, operations and cost management.
- Extensive experience deployment and managing Azure SQL databases for a variety of hosted database environments including MS-SQL and MySQL.

- Extensive experience managing and deploying Azure Virtual Machines (Windows and Linux) in both Azure-only and Hybrid Azure/On-Premises settings. Automation of Virtual Machine configurations using configuration management tools including Chef, SaltStack, Puppet and Ansible.
- Deployment of Standard and Gateway Load Balancers on Azure for high-availability application requirements.
- Deployment of Azure Front Door as CDN for static content and asset delivery for web-based applications.
- Extensive experience with Microsoft 365 including Exchange Online, Entra (Azure AD), Endpoint Manager (Intune), SharePoint Online and Dynamics 365 in a large-scale enterprise setting.
- Experience with Microsoft Defender and Microsoft Defender for Cloud DevOps (Microsoft 365 and Azure) in a large-scale enterprise setting.
- Deployment and management of PAN-OS (Palo Alto Networks) virtual appliances on Azure for physical connectivity to remote physical sites and datacenters.
- Experience with multi-appliance management of PAN-OS (Palo Alto Networks) physical and virtual appliances using Panorama across multiple physical sites, datacenters and cloud environments including Azure, OCI and AWS.
- Emphasis on high availability, fault tolerance, scalability and self-healing using a variety of methodologies, techniques and toolsets that are available. Examples include usage of AWS ELBs and AutoScaling along with scripting various elements of a platform using the AWS Python Boto (CLI) and Chef (Configuration Management and Service Orchestration open-source toolsets). Extensive experience with performing both multi-availability zone and multi-region deployments within AWS. Furthermore, architecture and development performed with an Infrastructure-as-Code practice, using tools such as AWS CloudFormation, Azure Bicep/ARM and Terraform to script and version control various deployments.
- Management of various projects across multiple client accounts. Included both project and resource management (deliverables, budgeting and personnel).
- Extensive experience with VPCs and “virtual” cloud networking. This includes the proper techniques to secure and segment an environment from all angles (perimeter and internally).
- Automation of the SDLC (Software Development Lifecycle) by integrating agile methodologies into continuous integration and delivery systems such as Jenkins and most recently, the AWS offerings that are available including AWS Code Pipeline and AWS CodeDeploy.

- Cross platform experience with a variety of operating systems including open-source platforms such as Ubuntu and Amazon Linux. Furthermore, I've worked extensively with RHEL and Windows Server 2012. Expertise of the management and deployment of these operating systems has been performed across multiple environments including AWS, OpenStack and On-Premises data centers.
- Core knowledge of cloud automation systems (specifically those within AWS) AWS Elastic BeanStalk and AWS OpsWorks. Both environments have been used to develop and deliver a "Platform as a Service" offering for various organizations and stacks.
- Scripting and development knowledge includes Bash (Linux automation) and PowerShell (Windows automation). Worked extensively from a DevOps perspective with software developers and architects in both Python and Node.js. Furthermore, I've worked very extensively with Ruby for developing complex Chef recipes to automate sophisticated workflows.
- Scaling of web application platforms for significant and substantial load. Various SaaS-offering platforms that I have scaled have included load for 6 million users with an end-user concurrency of 45,000 to 200,000 within a 24-hour period.
- Database technologies that I have worked with (within AWS, OpenStack and On-Premises data centers) include MySQL (RDS and Non-RDS), Postgres (RDS and Non-RDS), SQL Server (RDS and Non-RDS), Neo4j (NoSQL Graph DB Engine) and MongoDB.
- Application architecture experience using a three-tier application stack methodology (typically with a Web, API, and Database tier). I have done extensive deployments of these designs within AWS using the following backend technologies (nginx, Apache, Node.js APIs, MySQL, Postgres, MongoDB and Neo4j).
- Application containerization using Docker. Currently, I am working various projects that include the usage of both ECS (EC2 Container Service) and EKS (Elastic Kubernetes Service) (for clustering and high availability of containerized production environments).
- Architecture of large cloud environments (Design and development of both hybrid and private cloud deployments using AWS, OpenStack, Windows Azure, GCE and VMware).
- Emphasis on cloud-security using practical standards and best practices to harden and secure cloud-based infrastructure for public, private and hybrid cloud scenarios. Extended experience with modeling AWS security using security groups, NACLs, VPCs, WAF (Web Application Firewall), encryption and dedicated instance tenancy.

- Data analysis and integration experience with Microsoft SQL Server. Integration of cloud-based MS-SQL Server Deployment with Tableau for data science and analytical reporting. Additionally, performed integration between Salesforce and Microsoft SQL Server with SSIS.
- Experience with cloud-based “big-data” environments including AWS EMR. Additionally, I have had some exposure to the Hadoop and Spark frameworks for big-data processing along with HPC (High Performance Computing) in AWS.

The Efficiency Network

Senior AWS DevOps Engineer | January 2014 to May 2015

- Development of automated platform on AWS Cloud for energy efficiency production application. Services used include EC2, VPC, RDS, SNS, SQS, SES, SWF, Elastic Load Balancing, Auto-Scaling, S3, and CloudFront. Platform is provisioned as being fully automated with load-based scaling and self-healing capabilities.
- Usage of the Chef Configuration Management and Service Orchestration product to automate all elements of the TEN production application on AWS. Heavy customization of chef-based cookbooks and recipes to automate installations, configurations, and provisioning of AWS EC2 instances.
- Deployment of Jenkins Continuous Integration topology for automated builds and unit/integration testing.
- Experience with Node.js and Python. These are the primary languages used in the development of the energy-based production application.
- Deployment of a three-tiered data-storage and data repository using Neo4j, MongoDB, and MySQL. Technologies mentioned included the automated installation, configuration, and high-availability deployment.
- Implementation of the New Relic monitoring platform to monitor all elements of the production application for pro-active downtime detection and prevention.

Apangea Learning (Renamed to Think Through Math in 2011)

IT Manager | January 2011 to May 2013

Lead Infrastructure Architect | May 2008 to December 2010

- Provided technical guidance and management for other employees in the IT department. Management of a total of 4 technology professionals.
- Worked closely with the Vice President of Operations, CTO, and CEO to determine strategic and operational direction for all IT-based initiatives.
- Performed initial budgeting and capacity planning for IT requirements for Executive Management approval.
- Assisted with the decision-making process for approved internal IT vendors, IT products, and external resources.
- Participated in steering-committee activities to turn business requirements into elegant technology solutions. Performed complete build process and development of internal employee-level IT Help Desk. Development of SLAs (Service Level Agreements) to ensure high availability of all systems to all employees. Management and oversight of document management process for all internal systems and technology-related processes.
- Design and integration of Change Management process to ensure a near-100 percent up-time availability of all internal critical systems.
- Developed internal Information Security policies, procedures, and best practices for all levels of the organization.
- Development of CMDB / Asset Management and Asset Tracking system for asset procurement and loss prevention.
- Development of corporate policy related to systems and network security standards. Worked closely with executive management to develop these standards and policy.
- Participated in sales engineering calls and meetings with clients and potential clients to implement SaaS-based Think Through Math product. Also performed client-based troubleshooting at the network level to diagnose problems related to accessing SaaS-based TTM software.
- Coordinated project management efforts using agile project management methodology. Led and participated in various infrastructure and DevOps projects using agile project management and SCRUM through sprinting, retrospectives, and iterations.

- Coordinated the transition of entire server environment from bare metal to a near-100 percent virtualized environment using VMware.
- VMware administration and architecture skills include: vSwitch Design, Resource Pool Design, Clustering, Storage/Datastore Design, Hypervisor Upgrade Strategy, VLM (VMware Lab Manager) Administration, and design of distributed and consolidated VMware architectures.
- Administration of large-based systems including RHEL 5 and 6, Ubuntu, and CentOS. Extensive experience with Linux Administration including installation, automation, patching, and implementation. Linux technologies used include Apache, nginx, MySQL, PostgreSQL, Varnish, and HAProxy.
- Administration of both physical and virtual iSCSI SAN technologies including HP StoreVirtual (LeftHand Networks) and Openfiler.
- Coordinated the conversion of Cisco-based network firewall topology to Sonicwall Network Security Appliances. Implemented VLAN technology at switching and firewall level for network security and segmentation purposes. Configured and maintained site-to-site VPN connections for local and remote offices. Design of layer two site-to-site connectivity using dark and lit fiber solutions.
- Complete design and build-out of secured network DMZ to provide network-layered security for the organization. Implementation of Symantec security products including Endpoint Protection for workstation/server Anti- Virus protection and Symantec BrightMail gateway for E-Mail Anti-Virus protection and security compliance.
- Performed administration and day-to-day maintenance of Avaya IP Office (VoIP-based) phone system. In 2013, coordinated the conversion of Avaya IP Office to the Asterisk open-source PBX/phone system.
- Implemented network and server monitoring solutions including Cacti, New Relic, and OpenNMS.
- Coordinated complete re-design of internal Active Directory and Microsoft Exchange environment. Implemented AD 2008 R2 with Exchange 2010. In 2011, coordinated the migration of Exchange to Office 365.
- Extensive experience with Microsoft Windows technologies including DFS replication, Windows HA Clustering, GPO design, and Network Load Balancing.
- Coordinated implementation of internal VDI (Virtual Desktop) solutions for select users within the environment. Technologies used for VDI included a combination of Citrix XenDesktop and Citrix XenApp.

- Significant experience with cloud-computing environments including IaaS, PaaS, and SaaS (On Azure, AWS and RackSpace). In 2011, coordinated the initial implementation of cloud computing technologies into the environment including Office 365, AWS EC2, and Heroku PaaS.
- Worked closely with product development and software engineering group in a DevOps management capacity to design and implement the platform that TTM SaaS product would utilize. In 2008, our application was a .NET stack running on VMware. In 2011, a complete rebuild started using a Ruby on Rails stack that was to be hosted on a combination of Heroku and Amazon EC2.
- Extensive experience with cloud and software development tools including Git and GitHub, New Relic, Solr, Redis, Memcache, and Heroku.
- Extensive experience building out client-facing production infrastructure in the Amazon EC2 cloud. Experience included the automated provisioning of multiple environments for TTM SaaS application including Production, Development, and QA/Testing.
- Production experience with many of the AWS services including EC2, VPC, OpsWorks, S3, CloudFront, RDS, ELB, and Route 53. These technologies were used in the build-out of the TTM SaaS application. Production application was scaled and configured with a zero-downtime architecture across multiple AWS availability zones and regions.
- Configuration Management experience using chef and puppet for cloud- based system automation. Configuration toolset was also used in conjunction with cloud-based automation platforms including Scalr and RightScale.
- Architecture of unit-testing and continuous integration testing platforms using the Jenkins CI open-source product. Configuration was built-out to support a single master and multiple slave servers which were scaled on demand based on product development requirements.
- Development of DevOps platform which supported the TTM public WordPress CMS which sustained on average approximately 80k concurrent sessions per day. Architecture of platform was built on AWS EC2 and utilized technologies including nginx, Varnish, GlusterFS, AWS ELB, and AWS Auto-Scaling to support automated scaling during times of peak load.
- Worked closely with executive team and product development and software engineering groups to extensively scale TTM SaaS product and public web server infrastructure due to significant company growth in 2012.

Robert Half Technology (Contractor for ReedSmith, LLP)

Exchange Administrator | March 2007 to May 2008

- Build and design process of six Active-Active-Passive Exchange 2003 Enterprise clusters for centralized US datacenter.
- Performed on-going day-to-day administrative tasks of over-all Microsoft Exchange server environment; tasks included level 3 end-user support, environment maintenance, and server patching.
- Performed remote Exchange administration tasks for all international remote sites; locations included offices in both the US and UK.
- Extensive Exchange migration activities using Computer Associates XOssoft product.
- Performed post-migration activities including decommissioning of entire Exchange organizations within environment.
- Extensive experience with Anti-Virus/Anti-Spam and SMTP perimeter security products including Trend ScanMail for Exchange and Postini.
- Responsible for documentation of entire Exchange environment. Created various Visio diagrams of entire environment, processes and procedures, and general documentation for reporting and information purposes.
- Compliance with 24/7/365 system uptime requirement; All changes to environment were approved through rigorous change management process.
- Monitoring of Exchange environment using 3rd party applications including Quest and NetIQ.
- Build and administration of both stand-alone and root certificate authorities in Active Directory environment.
- Configuration and setup of BCV backups on Exchange production clusters for disaster recovery and backup/restore purposes.
- Worked closely with server management and storage management groups to design cluster storage specifications on SAN-attached EMC storage environment.
- Administration of EAS for user E-Mail archiving purposes.

- Performed end-user support and incident tracking using HEAT trouble-ticketing/case-management software.

A.C. Coy Company (Contractor for BNY Mellon, Formerly Mellon Bank) Systems Management Consultant | November 2006 to February 2007

- Worked closely with other Systems Software Management Specialists on routine monthly Microsoft server patch management and Mellon proprietary server patching processes.
- Experience with the Shavlik HFNetChk application for deployment of various Microsoft service packs, hot-fixes, and security patches to over 1300+ Wintel servers in both production and development environments.
- Upgrade of approximately 10 Microsoft Exchange mailbox server clusters from Microsoft Exchange 2003 SP1 to Microsoft Exchange 2003 SP2.
- Upgrade of approximately 15 Microsoft Exchange stand-alone (OWA, public folder, front-end, etc) servers from Microsoft Exchange 2000 to Microsoft Exchange 2003 SP2.
- Management and on-going maintenance of server hardware firmware upgrades on over 1300+ servers
- Management and on-going maintenance of high-availability applications such as Microsoft Exchange, MS-SQL Server, and File Server services which were clustered with Veritas Cluster Manager

ThermoFisher (Formerly Fisher Scientific) Remote Systems Engineer | December 2005 to November 2006

- Member of corporate Active Directory migration group; involved with enterprise migration process of over 300 physical sites and 30,000 users.
- Involved with all aspects of Active Directory migration process including planning of legacy domain migration and post-migration activities.

- Usage of Active Directory migration tools including the Microsoft ADMT (Active Directory Migration Tool) and Quest.
- Experience with server build process using fiber attached storage (EMC SAN Environment).
- Performed day-to-day administration of Microsoft Exchange 2003 environment; tasks and responsibilities included user administration, end-user support, and monthly maintenance.
- Experience with E-Mail gateway products including IronMail for secured SMTP relay.
- Usage of VMware GSX Server and Microsoft Virtual Server 2005 for virtual server environment.
- Extensive experience designing, implementing, and administering high-availability application infrastructure in Microsoft clustered environment
- Usage of Microsoft Operations Manager and Systems Management Server for patching and provisioning of Microsoft Windows-based servers.

Precision Response Corporation (PRC)

Senior Systems Engineer | February 2003 to December 2005

- Member of development group for Active Directory 2003 implementation across the enterprise; implementation included site connecting, domain controller deployment and administration, WINS/DNS/DHCP configuration, DFS, AD hierarchy setup, and the administration and creation of various GPOs.
- Performed setup and base installation of various servers including Windows NT 4.0 Server, Windows 2000 Server, and Windows 2003 Server.
- Configuration and administration of network load-balancing and clustering on file and Microsoft Exchange servers.
- Performed base setup, configuration, and administration of Microsoft servers including IIS 4.0, 5.0, and 6.0, SQL Server, ISA Server, and Terminal Services.
- Administration of enterprise-wide servers including Windows NT 4.0, Windows 2000, and Windows 2003 server environments; day-to-day administration activities include benchmark testing, event and log monitoring, resource monitoring, and security auditing.

- Familiarity with Altiris Server Provisioning Suite; used for server patch management, remote desktop control, software and hardware inventory, and activity and log reporting.
- Experience creating and administering RAID5 and RAID10 drive configurations on various models of Dell PowerEdge servers.
- Deployment of Dell OpenManage to all servers and workstations; used the Server Administrator, Array Manager, and Client Instrumentation components for automated server and desktop provisioning.
- Usage of server virtualization products including VMware GSX & ESX server and Microsoft Virtual Server 2005.
- Creation of network backup and restore jobs using Veritas Backup Exec 8.6 and Legato; Experience with installing the Veritas Open File Option and Remote Agent components along with the Networker User and Networker Administrator components for Legato.
- Administration of Microsoft Exchange Server 5.5 server associated with NT 4.0 legacy domain; setup and configuration of clustered Exchange environment for fail-over protection.
- Provided day-to-day support for existing NT 4.0 legacy domain; responsibilities include user management, group management, system policy management, profile management, and login script management.
- Usage of SQL Enterprise Manager for SQL Query utilities for troubleshooting and managing various databases.
- Usage of open source web and database systems including Apache, MySQL, PHP, and OpenSSL for in-house application development.
- Administration of Symantec System Center for anti-virus protection on both servers and workstations across enterprise.
- Administration of Symantec Ghost Console for workstation imaging, inventory collection, Microsoft patch management using AIBulder and AISnapshot, and remote software deployment.
- Setup and configuration of Microsoft SUS server for patch management and deployment to both Windows 2000 and Windows XP workstations.
- Experience administering and configuring call center recording technologies including E-Talk Recorder, E-Talk ROD, and NICE.

- Performed low-level administration of Avaya G3R PBX environment; responsibilities include the creation and management of stations, vectors, VDNs, COSs, CORs, and split/skills.
- Performed low-level administration of CMS (Avaya Call Management System); including dictionary administration, user administration, report generation, and backups.
- Administration of T-Links, VDNs, and stations within Lucent's CVCT (Centre-Vu Computer Telephony – CTI) server.
- Experience with Cisco 4000 and 6000 series switches; performed low-level administrative tasks including VLAN modifications and port trunking.
- Extensive experience with change management process used for making any modification or addition to any production system within enterprise.
- Basic experience with UNIX (Solaris) and Linux (Red-Hat) shell scripting in Bash, KSH, and TCSH.
- On-call 24/7/365 to provide emergency support when required.
- Provided general supervision to lower-level Systems Engineers/Administrators and other technical staff.

CDI Corporation (Contractor for Alcoa NADC)

Support Center Analyst | November 2002 to February 2003

- Provided level 1 phone support to all Alcoa NADC (North America Datacenter) internal and external clients.
- Always used professional customer service skills with all clients.
- Used Remedy trouble-ticketing system for problem ticket management and escalation if necessary.
- Troubleshooting of various issues for clients including Operating System, Cisco VPN, E-Mail, and Oracle.
- Account administration tasks including changing passwords and adding/removing user accounts on various systems including Active Directory domain, NT 4.0 legacy domain, UNIX servers, and Oracle.
- Advanced troubleshooting of Oracle problems including J-Cache issues and responsibility assignment issues.

OmniCell Technologies

Field Engineer | April 2002 to October 2002

- Extensive travel throughout the Mid-Atlantic region to various hospitals and medical environments.
- Performed various installations of pharmaceutical dispensing equipment developed by OmniCell
- Supported all proprietary hardware and software associated with OmniCell products
- Experience with FoxPro database systems.
- Experience with UNIX operating system which ran on various OmniCell systems.
- Experience with proprietary software systems developed by OmniCell including OmniCell and SureMed operating systems which ran on all products.

Communications & Commerce (CommComm)

Senior Systems Engineer | October 2001 to March 2002

- Performed administration and maintenance on both Windows NT 4.0 and Windows 2000 servers across WAN-linked domain.
- Administration of Microsoft Exchange Server 5.5 in clustered Windows NT 4.0 environment.
- Performed backup and restore procedures using ARCserveIT.
- Installed new server hardware; this included the physical racking of Compaq Proliant servers and various external SCSI Array controllers.
- Assisted with the planning and development stages for Active Directory 2000 throughout the enterprise.
- Performed daily administration tasks of 10 NT 4.0 Enterprise Edition servers and 500 Windows 2000 Professional workstations
- Managed NT 4.0 DNS/WINS/DHCP for the local environment.

- Used PowerQuest's Drive Image Pro software and Power-Cast server for the imaging and staging process of a multiple number of user workstations at one time.
- Implemented and administered anti-virus software including McAfee and InoculateIT across the enterprise using remote administration and management consoles.
- Implementation and administration of Microsoft ISA server.
- Basic administration of Centenium/EIS-powered call center.
- Troubleshooting of SONET OC-3, DS3, and T1/Frame-Relay circuits.
- Experience with the implementation process of DS3 MUXs/IMUXs and T1 multiplexers
- On-call 24/7/365 to provide emergency support when required.
- Provided general supervision to lower-level Systems Engineers/Administrators and other technical staff.

TEK Systems (Contractor for Allegheny Energy)
Support Center Analyst | March 2001 to September 2001

- Administration of various NT and UNIX based servers for Wireless Broadband Internet customers.
- Administration of Linux Sendmail server for ISP-based customers.
- Creation of internal knowledge base for other level 1 support center analysts.
- Usage of Tripwire software for security on UNIX-based servers. Performed file integrity analysis and vulnerability assessments with this application.
- Administration of the Remedy/ARS trouble-ticketing system; developed various forms and schemas for ISP project (ACC Connect).

Stargate.net, Inc.

Technical Support & NOC Analyst | August 1999 to March 2001

- Administration of NT and various UNIX-based (Sun Microsystems) servers.
- Pro-active network monitoring using NetCool.
- Troubleshooting of dedicated data circuit connectivity for corporate-level customers.
- Provided level 2 phone support for both residential and corporate customers.
- Experience with Livingston PortMaster and Shiva Terminal Server/Modem Banks for large-scale multi-area and multi-region dial-up PPP connectivity.
- Extensive experience and system administration of BIND DNS and Sendmail Mail Servers.
- Extensive experience with management and administration of RADIUS authentication systems.
- Extensive experience with ATM, T1, Frame Relay, ISDN, PRI and A/SDSL customer and internal connectivity.
- Extensive experience with routing protocols including BGP and OSPF within a large-scale Cisco router environment.

Various Volunteer and Non-Paid Positions

December 1992 to August 1999

- Experience with legacy systems including Mainframe production systems (IBM AS/400, System/390). Operating systems included VM/ESA and OS/390.
- Administration of IBM Classroom Administration System in a multi-server Novell NetWare 3.12 environment.
- Experience with local token ring connectivity and legacy IPX and OSPF protocols in a large multi-site environment.
- Operation of various dial-up BBS and ISP systems from 1992 to 1999 using a variety of software and environments including Worldgroup, eSoft IPAD and various "freeware/open-source" software products.

EDUCATION

2000 – Hempfield Area High School | High School Diploma | Greensburg, PA

2014 – AWS Certified Solutions Architect, Associate Level | Certification | Amazon Web Services

2015 – AWS Certified SysOps Administrator, Associate Level | Certification | Amazon Web Services

2015 – AWS Certified Developer, Associate Level | Certification | Amazon Web Services

IT MANAGED SERVICES & STRATEGIC CONSULTING CLIENTS

- TrueLearn | Education and Healthcare SaaS, Learning Management System
- Amy's Kitchen | Food Manufacturing
- Identified Technologies | Automated Drone Mapping Technology
- VIT Initiative | IoT, Safety Vertical
- Hightower | Financial and Fintech
- BluPanda | Healthcare SaaS
- Arcadia | Healthcare SaaS
- ExamMed | Healthcare SaaS
- The Code Runner | Healthcare SaaS
- IDS International | U.S. Government and Cyber Security
- Boeing | Aviation & Aerospace

TECHNICAL AND PLATFORM SKILL SUMMARY

- **DevOps Tools:** Azure DevOps, Jenkins, Git, Docker, Kubernetes
- **Static Code Analysis:** SonarQube, Checkov
- **Cloud Platforms:** Azure, OpenStack, AWS, GCP
- **Infrastructure as Code:** Terraform, ARM Templates, Bicep
- **Scripting Languages:** PowerShell, Bash, Python, HCL, Ruby
- **CI/CD:** Git, Azure Pipelines, Jenkins, GitLab CI, GitHub Actions
- **Monitoring & Logging:** Azure Monitor, Log Analytics, Grafana, Prometheus, AWS CloudWatch
- **Version Control:** Git, GitHub, GitLab, Bitbucket
- **Configuration Management:** Ansible, Chef, Puppet, SaltStack
- **Operating Systems:** Windows, Linux (Ubuntu, RHEL, CentOS, Amazon Linux)