DevOps Roadmap:

DevOps

Learn a Programming Language
Pick any language for automation.
- Python
- Ruby
- JavaScript / Node.js
- Go
- Rust

Understand different OS Concepts
- Networking
- POSIX
- I/O Management
- Virtualization
- Memory/Storage
- File Systems
- Sockets
- Processes
- Startup Management (initd)
- Service Mgmt. (systemd)
- Threads and Concurrency

Learn about Managing Servers
Get some administration knowledge in some OS. Go with any Linux distro. Pick Ubuntu if you have a little to no experience with Linux.

Operating System
- Windows
- Linux
  - Ubuntu / Debian
  - SUSE Linux
  - RHEL / Derivatives
- Unix
  - FreeBSD
  - OpenBSD
  - NetBSD

Learn to live in Terminal
- Learn Bash Scripting
- Vim/Nano/PowerShell/Emacs
- Compiling apps from source (gcc, make and other related stuff)

terminal multiplexers
- screen
- tmux

Networking, Security and Protocols
- DNS
- White/Grey Listing
- OSI Model

Emails
- SMTP
- IMAPS
- POP3S
- DMARC
- SPF
- Domain Keys

- HTTP
- HTTPS
- FTP / SFTP
- SSL / TLS
- SSH
- Port Forwarding

Text Manipulation Tools
awk	sed	grep	sort
cut	uniq	cat	echo
fmt	tr	nl	wc

Others
| strace | dtrace | systemtap |
| uname | df | history | du |

Process Monitoring
| ps | top | htop | atop | lsof |

System Performance
| nmon | iostat | sar | vmstat |

Network Tools
traceroute	mtr	ping	nmap
netstat	ufw / firewalld	tcpdump
iptables / nftables	dig	scp

What is and how to setup a _____?
- Reverse Proxy
- Caching Server
- Forward Proxy
- Load Balancer
- Firewall
- Web Server
  - Nginx
  - Apache
  - Tomcat
  - IIS

Containers
- Docker
- LXC

Infrastructure as Code

GitOps
- ArgoCD
- FluxCD

Service Mesh
- Istio
- Linkerd
- Consul
- Envoy

Secret Management
- Vault
- SOPS
- Sealed Secrets
- Cloud Specific Tools

Infrastructure Provisioning
- Terraform
- AWS CDK
- CloudFormation
- Pulumi

Configuration Mgmt.
- Ansible
- Chef
- Puppet

Container Orchestration
- Kubernetes
- Docker Swarm
- Nomad

Learn some CI/CD Tool
- Gitlab CI
- Jenkins
- GitHub Actions
- Travis CI
- TeamCity
- Azure DevOps Services
- Circle CI
- Drone

Logs Management
- Elastic Stack
- Graylog
- Splunk
- Papertrail
- Loki

Learn how to monitor software and infrastructure

Infrastructure Monitoring
- Prometheus
- Nagios
- Grafana
- Zabbix
- Monit
- Datadog

Application Monitoring
- Jaeger
- New Relic
- AppDynamics
- Instana
- OpenTelemetry

Cloud Providers
- AWS
- Alibaba Cloud
- Google Cloud
- Digital Ocean
- Azure
- Linode
- Heroku
- Vultr

Cloud Design Patterns
http://bit.ly/cloud-arch-patterns
- Availability
- Data Management
- Design and Implementation
- Management and Monitoring

Keep Learning