

DevOps Career Roadmap 2026

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? DevOps Career Roadmap 2026

From Zero to Production-Ready DevOps Engineer in 8 Months

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? About This Roadmap

This guide provides a **step-by-step learning path** from absolute beginner to production-ready DevOps professional. Whether you're starting from scratch or transitioning from another field, this roadmap will help you build the skills employers are looking for in 2026.

What's Inside: ? 5-phase learning timeline with specific milestones

? Certification checklist with exam numbers and weights

? Production stack deployment guide for each phase

? Resource recommendations (free and paid)

? Weekly goals and objectives

How to Use This:

1. Print this roadmap and hang it next to your desk
 2. Check off milestones as you complete them
 3. Set calendar reminders for your weekly goals
 4. Revisit monthly to track your progress
-

? The Modern DevOps Toolchain (2026)

-----+ AI Infrastructure GPU, Model Serving, Inference +-----+
-----+ Infrastructure as Code Terraform, Ansible, GitOps +-----+
-----+ Container Orchestration Kubernetes, Helm, Service Mesh +-----+
-----+ Containers Docker, Podman, Images, Registries +-----+
-----+ Linux Fundamentals Command Line, Processes, Networking +-----+

Every layer builds on Linux. Every layer is open-source. Every layer can be self-hosted.

? Phase 1: Linux Fundamentals (Months 1-3)

? What You Need to Learn

Topic	Key Concepts	Completion Checklist
Command Line Fluency	Navigation, file ops, text processing, pipes, redirects	?
Process Management	ps, top, kill, systemd, journalctl	?
Filesystem Management	Partitions, mounting, ext4/XFS, permissions, links	?
Package Management	apt, dpkg, yum, rpm, package sources	?
Networking Basics	IP addressing, routing, DNS, ss, curl, ping	?
Shell Scripting	Variables, conditionals, loops, functions	?
Security Basics	Users, groups, sudo, file permissions, SSH keys	?

? Monthly Breakdown

Month 1: Getting Comfortable with Linux

- **Week 1-2:** Install Linux (Ubuntu/Debian recommended), master basic commands
- **Week 3-4:** File system navigation, permissions, text processing

Milestone: Can perform all basic system administration tasks from the command line

Month 2: System Administration Deep Dive

- **Week 1-2:** Process management, service control (systemd)
- **Week 3-4:** Networking configuration, package management

Milestone: Can install, configure, and troubleshoot a Linux server

Month 3: Scripting and Automation

- **Week 1-2:** Shell scripting fundamentals
- **Week 3-4:** Write scripts to automate repetitive tasks

Milestone: Can write simple shell scripts without referencing documentation

? Certification: LPIC-1

The **LPIC-1 certification** validates exactly these skills:

- **Exam 101-500:** System architecture, Linux installation, package management, GNU & Unix commands
- **Exam 102-500:** Shells, scripting, data management, interfaces, desktops, administrative tasks

Target: Score 650+/800 on practice exams before taking the real test

? Recommended Resources

Resource	Type	Cost	Ratings
LPIC-1 Study Guide	Guide	Free	?????
LPIC-1 101-500 Deep Dive	Deep Dive	Free	?????
LPIC-1 102-500 Deep Dive	Deep Dive	Free	?????
LPI Practice Subscription	Practice Exams	EUR9.99/month	?????
The Linux Command Line (William Shotts)	Book	Free	?????

? **Quick Access:** [Free LPIC-1 Practice Questions ->](#)

? Phase 2: Containers and Orchestration (Months 3-5)

? What You Need to Learn

Topic	Key Concepts	Completion Checklist
Container Fundamentals	Images, containers, registries, Dockerfile, multi-stage builds	?
Docker Compose	Multi-service apps, networking, volumes, environment variables	?
Container Orchestration	Pods, Deployments, Services, Ingress, ConfigMaps, Secrets	?
Production Kubernetes	k3s, Helm charts, persistent storage, RBAC	?
GitOps	ArgoCD, Flux, deployment from Git	?

? Monthly Breakdown

Month 4: Docker Deep Dive

- **Week 1-2:** Docker fundamentals, images, containers, Dockerfile
- **Week 3-4:** Docker Compose, multi-container applications, networking

Milestone: Can containerize an application and deploy it with Docker Compose

Month 5: Kubernetes Introduction

- **Week 1-2:** Kubernetes architecture, kubectl, Pods, Deployments
- **Week 3-4:** Services, Ingress, ConfigMaps, Secrets, k3s

Milestone: Can deploy a multi-service application to a k3s cluster

? Certification: LPIC-2 & DevOps Tools Engineer

LPIC-2 (Advanced Linux):

- **Exam 201-500:** Capacity planning, Linux kernel, system startup, filesystem, hardware
- **Exam 202-500:** Domain name server, web services, file sharing, network client management, email services, security

DevOps Tools Engineer (701-100):

- Container Management (20%)
- CI/CD (25%)
- Infrastructure as Code (15%)
- Monitoring & Observability (15%)
- Security (15%)
- Software Development (10%)

? Production Stack Recommendations

Stack	Components	Use Case	Price
SSL Reverse Proxy Stack	Nginx + Certbot + CrowdSec	Secure entry point	EUR9.99
Database Foundation Stack	PostgreSQL + Redis	Data layer	EUR9.99
MinIO S3 Backup Stack	MinIO	Object storage	EUR9.99

? **Bundle:** All 5 Stacks + Cheatsheets -> Save 20%

? **Recommended Resources**

Resource	Type	Cost
Docker Documentation	Docs	Free
Kubernetes Official Tutorials	Tutorials	Free
DevOps Articles	Guides	Free

? **Phase 3: Observability and Reliability (Months 5-6)**

? **What You Need to Learn**

Topic	Key Concepts	Completion Checklist
Metrics	Prometheus, counters, gauges, histograms, alerting rules	?
Logging	Loki, Elasticsearch, structured logging, log aggregation	?
Dashboards	Grafana, data sources, dashboard design, annotations	?
Monitoring Patterns	USE method, RED method, SLIs, SLOs, error budgets	?
Incident Response	Alerts, on-call, escalation, postmortems	?
SRE Practices	SLIs, SLOs, error budgets, capacity planning	?

? **Monthly Breakdown**

Month 6: Monitoring and Observability

- **Week 1-2:** Prometheus setup, metric collection, alerting
- **Week 3-4:** Grafana dashboards, Loki for logs, observability patterns

Milestone: Can set up comprehensive monitoring for a production application

? **Production Stack: Observability**

The **Observability Stack** (EUR9.99) includes:

- Prometheus (metrics collection)
- Grafana (visualization)
- Loki (logs)
- Alloy (collector)
- cadvisor (container metrics)
- node_exporter (node metrics)
- Pre-built dashboards

? **Tip:** This is the same stack used by startups and enterprises worldwide.

? Recommended Resources

Resource	Type	Cost
Prometheus Documentation	Docs	Free
Grafana Tutorials	Tutorials	Free
Observability Guide	Guide	Free

? Phase 4: CI/CD and Automation (Months 6-7)

? What You Need to Learn

Topic	Key Concepts	Completion Checklist
Version Control	Git branching (GitHub Flow, Git Flow), code review	?
CI Pipelines	Build, test, lint, security scan on every push	?
CD Pipelines	Deploy to staging on merge, promote to production on tag	?
GitOps	Declarative deployments, sync from Git, drift detection	?
Infrastructure as Code	Terraform/OpenTofu, Ansible, idempotency	?

? Monthly Breakdown

Month 7: Automation Deep Dive

- **Week 1-2:** CI/CD pipeline setup, Git workflows
- **Week 3-4:** Infrastructure as Code, GitOps with ArgoCD

Milestone: Can automate deployment of applications from code commit to production

? Production Stack: n8n

The **n8n Production Stack** (EUR9.99) includes:

- n8n workflow automation engine
- PostgreSQL persistence
- Redis queue mode
- Execution pruning
- Production-ready configuration

Use Cases: Webhook-triggered workflows, scheduled jobs, API orchestration, integration glue

? Phase 5: AI Infrastructure (Months 7-8+)

? What You Need to Learn

Topic	Key Concepts	Completion Checklist
GPU Passthrough	NVIDIA Container Toolkit, CUDA, GPU sharing	?
Model Serving	Ollama, vLLM, TensorRT-LLM	?
API Gateways	LiteLLM, unified endpoints	?
Inference Optimization	Quantization, batching, speculative decoding	?
User Interfaces	Open WebUI, Continue.dev	?
Monitoring for AI	GPU metrics, token throughput, TTFT, latency	?

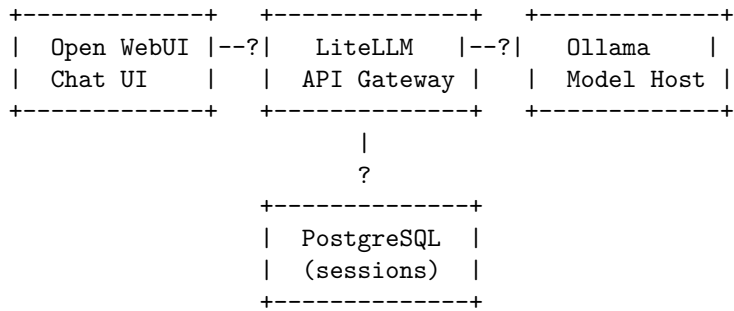
? Monthly Breakdown

Month 8: AI Infrastructure Deployment

- **Week 1-2:** GPU setup, model loading, basic inference
- **Week 3-4:** API gateway, optimization, monitoring

Milestone: Can deploy and manage AI inference workloads on your infrastructure

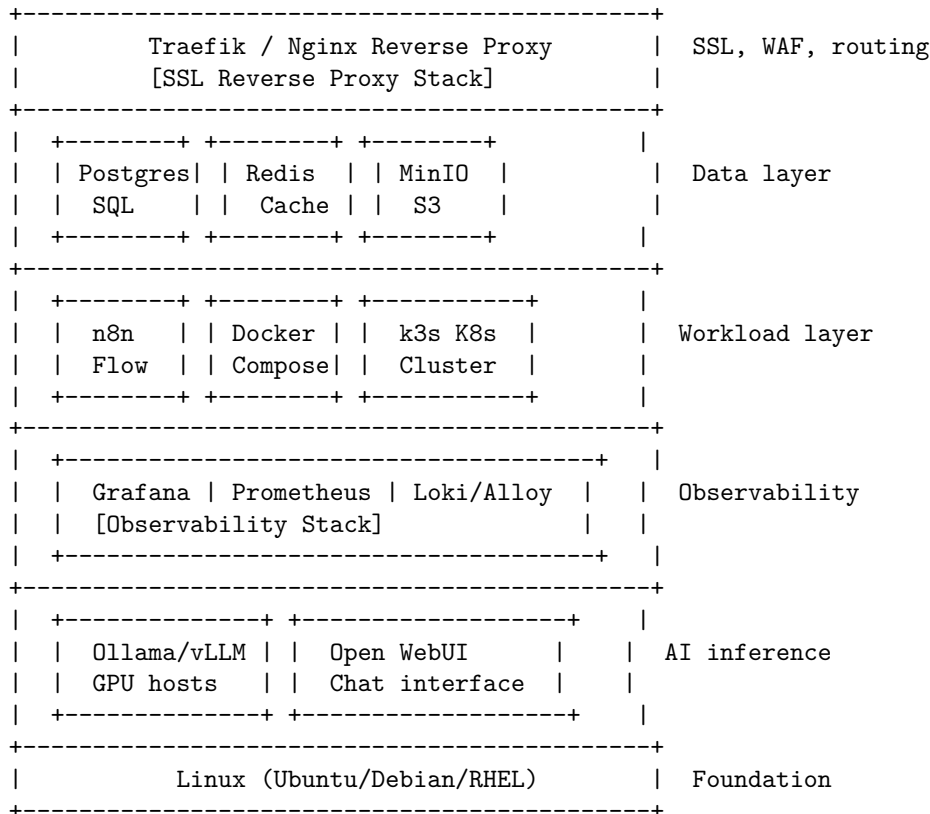
? Self-Hosted AI Stack Architecture



All containerized, all open-source, all running on your Linux infrastructure.

? The Complete Production Architecture

When you finish all 5 phases, your production infrastructure will look like this:



Every layer is open-source. Every layer can be self-hosted. Every layer builds on Linux.

? Certification Path That Matches This Stack

Phase	Certification	What It Validates	Difficulty
1	LPIC-1	Linux fundamentals, command line, system administration	??
2	DevOps Tools Engineer	Containers, CI/CD, IaC, monitoring	???
3	LPIC-2	Advanced Linux, networking, storage, security	???
4	LPIC-3	Specialization: security, HA, virtualization	????

Note: You don't need all of them. Each one validates a layer of the stack and makes you more credible.

? Practical Next Steps

Month 1 (Start Today)

1. ? Install Linux in a VM or on a spare machine (Ubuntu or Debian recommended)
2. ? Go through the **LPIC-1 101-500 Deep Dive**
3. ? Start the **LPIC-1 Study Plan**
4. ? Test yourself with **free practice questions**

Month 2

1. Write your first shell scripts to automate manual tasks
2. Install Docker and deploy your first container (nginx, PostgreSQL, anything)
3. Learn Docker Compose to define multi-service applications

Month 3

1. Take LPIC-1 practice exams until you consistently score 700+
2. Install k3s on a VM and deploy a real application
3. Learn Helm to package your Kubernetes manifests

Month 4

1. Set up Prometheus + Grafana to monitor your k3s cluster
2. Learn Loki for log aggregation
3. Set up alerting to get notified when things break

Month 5

1. Build a CI/CD pipeline (GitHub Actions or GitLab CI)
2. Learn Terraform or OpenTofu for infrastructure as code
3. Set up GitOps with ArgoCD for automatic deployments

Month 6+

1. Deploy Ollama + Open WebUI to run LLMs
 2. Learn GPU scheduling in Kubernetes
 3. Automate everything with n8n workflows
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? Recommended Products

Free Resources

- [DevOps Career Roadmap PDF](#) -> (This guide!)
- [LPIC-1 Free Practice Questions](#) ->
- [Linux Command Cheat Sheet](#) ->
- [DevOps Articles](#) ->

Paid Resources

Product	What You Get	Price
LPI Practice Subscription	Unlimited practice exams, all LPI tracks	EUR9.99/month
DevOps Cheatsheets Bundle	23 cheatsheets for Docker, K8s, Terraform, etc.	PWYW from EUR2.99
SSL Reverse Proxy Stack	Production-ready Nginx + Certbot + CrowdSec	EUR9.99
Database Foundation Stack	PostgreSQL + Redis with backups	EUR9.99
MinIO S3 Backup Stack	S3-compatible storage with lifecycle	EUR9.99
n8n Production Stack	Workflow automation with Postgres + Redis	EUR9.99
Observability Stack	Prometheus + Grafana + Loki + Alloy	EUR9.99
Complete DevOps Bundle -> Save 20%	All 5 stacks + DevOps Cheatsheets	EUR39.99

? Pro Tips

1. **Start small:** Don't try to learn everything at once. Pick one phase and master it.
2. **Build real projects:** Theory is important, but you learn by doing.
3. **Document everything:** Keep notes on what you learn. You'll reference them later.
4. **Join communities:** [r/devops](#), [r/linuxadmin](#), [r/kubernetes](#) are great places to ask questions.
5. **Contribute to open source:** The best way to learn is to teach and contribute.
6. **Be patient:** This is a journey, not a sprint. Everyone starts somewhere.
7. **Have fun:** If you're not enjoying it, you're doing it wrong.

? Need Help?

- **Questions about the roadmap?** Email: devops@tobias-weiss.org
- **Need 1:1 guidance?** [Book a DevOps Career Strategy Session](#) ->
- **Found a mistake?** Open an issue: github.com/tobias-weiss-ai-xr/next-tobias-weiss-org

? More Resources

- [tobias-weiss.org](#) - More articles and guides
- [Articles <-> DevOps](#) - All DevOps articles

- [Store <-> Production Stacks](#) - All production-ready stacks
- [GitHub <-> tobias-weiss-ai-xr](#) - Open source projects

Remember: Every expert was once a beginner. The only difference is they started. **You've already started by downloading this roadmap. Now keep going.**

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DevOps Engineering & Linux Certification

More Resources

- tobias-weiss.org Articles, guides, and free resources
 - courses.graphwiz.ai LPI practice exams & study tools
 - graphwiz.ai AI infrastructure & knowledge graphs
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