

## **1-Year Weekly Roadmap: DevOps + Cloud Engineer (Complete Skillset)**

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### **Month 1: Linux + Python Basics + Git/GitHub**

**Week 1:** - Linux Basics: CLI, file system, permissions, navigation - [Linux Journey](#) - [The Linux Command Line Book](#) - Git Basics: init, clone, add, commit, push - [Git Handbook](#)

**Week 2:** - Bash Scripting: variables, loops, if-else, functions - [Bash Scripting Guide](#) - Python Basics: syntax, variables, loops, functions - [Automate the Boring Stuff](#)

**Week 3:** - Python File I/O, error handling, lists/dictionaries - Python + Linux: Create a file monitoring script - [FreeCodeCamp Python Full Course](#)

**Week 4:** - GitHub workflow: branches, pull requests - Final mini project: Python + bash script to backup files and push to GitHub

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### **Month 2: AWS + Python SDK (boto3) + Networking**

**Week 5:** - AWS Intro: IAM, EC2, S3, CLI - [AWS Cloud Practitioner Essentials](#) - Create and connect to EC2 instance

**Week 6:** - Python with AWS (boto3): upload file to S3, launch EC2 - [Boto3 Docs](#)

**Week 7:** - VPC basics, subnets, internet gateway, security groups - Python project: Auto EC2 + S3 setup using boto3

**Week 8:** - AWS: RDS, CloudWatch, SNS, EBS, Load Balancers - Project: Deploy Python app on EC2 + monitor with CloudWatch

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### **Month 3: Docker + CI/CD (GitHub Actions + Jenkins)**

**Week 9:** - Docker: images, containers, Dockerfile, docker-compose - [Docker Mastery by Bret Fisher](#)

**Week 10:** - Create Dockerfile for Flask app - Dockerize and run app locally

**Week 11:** - GitHub Actions: Setup pipeline to build/test app - [GitHub Actions Docs](#)

**Week 12:** - Jenkins: Install locally, create job - CI/CD Project: Auto deploy Docker app using GitHub Actions/Jenkins

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## **Month 4: Infrastructure as Code (Terraform + Ansible)**

**Week 13:** - Terraform: basics, syntax, init, plan, apply - [Terraform for Beginners – FreeCodeCamp](#)

**Week 14:** - Create Terraform config to launch EC2, create S3

**Week 15:** - Ansible basics: inventory, playbook, YAML, ad-hoc commands - [Ansible Docs](#)

**Week 16:** - Project: Provision EC2 with Terraform, configure with Ansible

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## **Month 5: Monitoring + Logging (Prometheus, Grafana, ELK)**

**Week 17:** - Prometheus + Node Exporter setup - Metrics and alerting basics

**Week 18:** - Grafana: dashboards, queries, alerts - [Grafana Labs Tutorials](#)

**Week 19:** - ELK Stack (Elasticsearch, Logstash, Kibana) - [ELK Guide](#)

**Week 20:** - Monitoring Project: Docker app monitored by Prometheus + Grafana

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## **Month 6: Kubernetes (K8s) + Helm**

**Week 21:** - K8s Basics: minikube, kubectl, pods, deployments - [KodeKloud Kubernetes for Beginners](#)

**Week 22:** - Services, ingress, configMaps, secrets

**Week 23:** - Helm basics: install charts, create custom chart

**Week 24:** - Project: Multi-tier app with K8s + Helm + Ingress + Auto-scaling

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## **Month 7-8: Capstone Projects + Resume Building**

**Week 25-28:** - Final Capstone Project: - Python Web App → Docker → Jenkins CI/CD → AWS Infra via Terraform → Kubernetes deployment → Monitored by Prometheus - Document architecture with diagrams (draw.io)

**Week 29-30:** - Write technical blog on project (Medium or Dev.to) - Prepare project README and GitHub clean-up

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## **Month 9: Freelancing + Real World Simulation**

**Week 31-32:** - Set up profiles on Upwork, Fiverr, Turing - Create 3 small service packages (e.g., "Deploy Docker app on AWS")

**Week 33-34:** - Apply for real client jobs - Simulate client work: respond to tickets, work with deadlines

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### **Month 10: Job Hunting Prep + Profile Polish**

**Week 35-36:** - Build ATS-friendly resume using project keywords - Update LinkedIn headline, banner, and About section

**Week 37-38:** - Mock Interviews: System Design (basic), Python scripts, AWS, CI/CD - [DevOps Interview Qs](#)  
[GitHub](#)

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### **Month 11-12: Placement Phase**

**Week 39-44:** - Apply to 5-10 jobs/day: Naukri, LinkedIn, AngelList, Hirect, CutShort - Attend interviews, refine answers

**Week 45-48:** - Accept first offer, keep upskilling - Aim for salary ₹50K/month+ (₹6 LPA+) - Keep learning advanced AWS (DevOps Pro cert or Kubernetes CKA later)

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**You're now a full DevOps + Cloud Engineer with a professional portfolio, projects, and certs.**