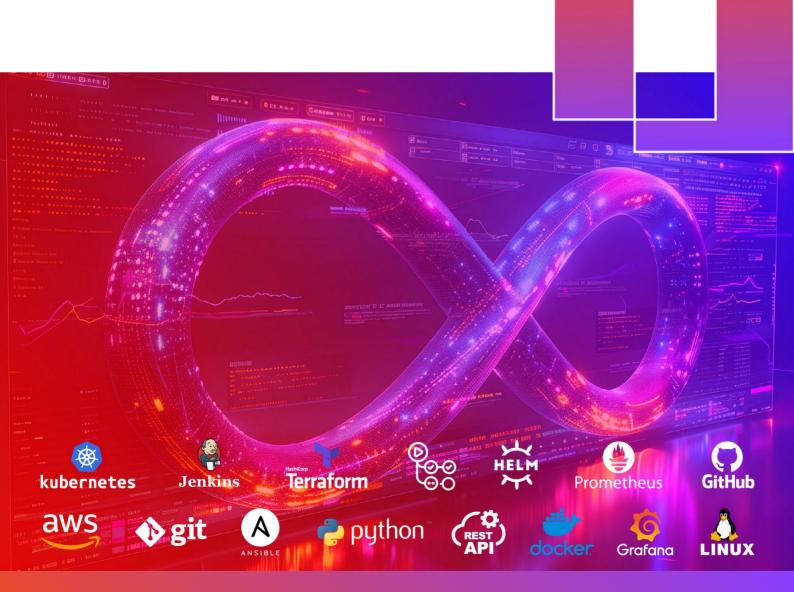


DEVOPS COURSE SYLLABUS





INTRODUCTION

While students in large colleges study mass amounts of theory, we offer up to date, fresh and relevant DevOps classes focused on practical work methods, adapted to industry needs so you can penetrate the job market with enough confidence and the right experience to do your job right.

Our classes are taught by industry experts, **those who work simultaneously as interviewers and recruiters** in high-tech companies and know exactly what it takes to succeed. Each student learns exactly what they need to know for their future jobs – for this reason, all candidates are screened and evaluated before admission in order to guarantee the highest level of learning and ensure future career opportunities.

What does this mean for you? You gain the best hands-on experience and pay less money two birds, one stone.

OUR KNOWLEDGE, YOUR FUTURE



INDIVIDUALS

Our DevOps courses focus on practical knowledge; in class exercises, homework assignments and learning in small groups which allows for personal attention and better understanding of the material.



COMPANIES

We offer customized DevOps courses and workshops according to your company needs. Course materials are suited to your everyday tasks and training requirements.



"FIND WORK"

We can provide career assistance by reviewing your resume, teaching social media networking and defining LinkedIn content for professional "branding" as well as refer you to relevant positions.





COURSE OVERVIEW

Imagine stepping into the world of DevOps, where automation, scalability, and efficiency shape the backbone of modern software. This course is your gateway to mastering the tools and techniques that keep the world's most advanced systems running smoothly.

Your journey begins with the foundations - DevOps principles and fundamentals - giving you a solid base to build upon. From there, you'll dive into containerization, learning to package and deploy applications seamlessly with Docker and Kubernetes. As your confidence grows, you'll tackle advanced Kubernetes topics, harness Helm for package management, and streamline collaboration with Git version control.

With a strong technical foundation, it's time to bring automation into play. You'll craft powerful CI/CD pipelines using GitHub Actions, implement GitOps with ArgoCD for seamless deployments, and architect cloud infrastructure on AWS. To ensure reliability, you'll explore monitoring tools like Prometheus and Grafana, learning how to keep systems performing at their best.

But knowledge alone isn't enough - real expertise comes from hands-on experience. That's why this course culminates in a rolling project, where you'll apply everything you've learned to build a fully functional DevOps pipeline, ready for production. Step by step, you'll integrate containerization, orchestration, automation, and monitoring, gaining the practical skills and strategic mindset needed to thrive in DevOps.

By the end of this journey, you won't just understand DevOps - you'll be ready to lead, innovate, and make an impact. Are you ready to take the leap?



WHO IS THIS COURSE FOR?

DevOps engineer career opportunities are exploding worldwide. Organizations are investing heavily in DevOps capabilities to maintain a cutting edge in the market. DevOps course will be of benefit the following professional roles:

- System Administrators (SysAdmins)
- IT Engineers
- Cloud Engineers
- IT Support Specialists
- NOC Engineers
- Operations Support
- QA Engineers (Manual QA, Automation Testers)
- DevOps Engineers
- Software Developers
- Deployment Engineers
- Technical Project Managers
- Dev Managers
- Senior DevOps Engineers
- Architects
- Site Reliability Engineers (SREs)
- Platform Engineers
- Decision Makers (CTO, VP Engineering, Head of DevOps, etc.)



THE INSTRUCTORS



Danny Gitelman Senior Site Reliability Engineer







Aviel Buskila

DevOps Lead







Daniel Gotlieb

DevOps Team Lead

trigo





Modi Tamam DevOps Leader







Yarin Galmor

Senior DevOps Engineer







Doron Nuni

R&D Group Manager

imperva





Eduard Usatchev

DevOps Team Lead

Walmart Clobal Tech







LEARN FROM INDUSTRY EXPERTS

Industry-recognized DevOps engineer course will teach you current and in-demand skills, ensuring you stay ahead of the curve in a fast-changing industry.



WORK ON A REAL-LIFE USER PROBLEM

Practical skills are key to succeed and stand out in the market. By working on practical tasks throughout the course, you'll master the skills of a great DevOps engineer.



LEARN AMONGST PROFESSIONALS

With a network of likewise professionals, enjoy the unique perspective and professional experience of your classmates.

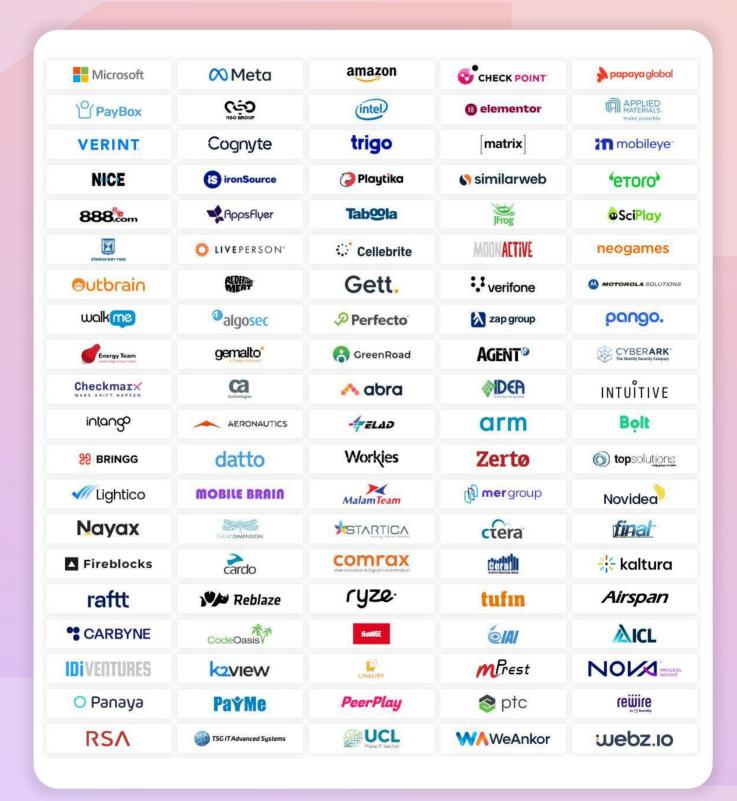


CONNECT WITH THE INDUSTRY

Expect dedicated career guidance, access our industry hiring partners, and find your future employment in DevOps.



OUR ALUMNI WORK WITH THE BEST



*A partial list of 600+ companies



WHAT YOU'LL LEARN





Session 1: DevOps Foundation & Course Overview

Get a big-picture understanding of DevOps and the course's roadmap. Explore foundational principles and practices (CI/CD, Collaboration, Automation) and ensure everyone is aligned with a quick Linux skills recap.

- Understand the principles and practices of DevOps.
- Explore networking tools for DevOps readiness.
- Recap Linux basics: commands, permissions, tools and SSH.

Session 2: Docker

Master containerization with Docker to build, deploy, and manage applications efficiently. Learn how to create Docker images, use Dockerfiles, manage containers, and implement networking. Build, deploy, and manage containers efficiently while mastering multi-stage builds.

- Create and manage Docker containers and images.
- Work with Docker networking and bridge networks.
- Build Dockerfiles and automate image creation.

Session 3: Kubernetes Basics

Gain a strong foundation in Kubernetes, the leading container orchestration system. Learn how Kubernetes manages containers at scale, automates deployments, and ensures application reliability. Configure deployments, scale applications, and automate tasks seamlessly for high reliability.

- Understand Kubernetes architecture and core components.
- Deploy and manage pods, ReplicaSets, and Deployments.
- Set up networking, services, and load balancing.



Session 4: Kubernetes Advanced

Take Kubernetes to the next level by implementing persistent storage, managing configurations, and automating workloads. Learn how to use Persistent Volumes, ConfigMaps, and scheduled jobs for robust and efficient applications. Scale smarter, implement robust storage solutions, and enhance application reliability.

- Implement Persistent Volumes and Persistent Volume Claims.
- Manage Kubernetes ConfigMaps and Secrets for dynamic configurations.
- Automate recurring tasks using Kubernetes Jobs and CronJobs.

Session 5: Package Management & Helm

Streamline application deployment with Helm, Kubernetes' powerful package manager. This session covers everything from fundamentals to advanced best practices, ensuring you can efficiently manage K8S applications at scale.

- Create and manage Helm charts with Artifact Hub, ChartMuseum and chart dependencies to package and distribute applications.
- Test, secure, and extend Helm use chart validation and Helm plugins
- Automate and optimize deployments Integrate Helm with CI/CD pipelines

Session 6: Version Control - Git

Master Git, the industry's leading version control system. Learn essential commands, branching strategies, and efficient collaboration using GitHub. Gain hands-on experience in managing code, resolving conflicts and optimizing workflows.

- Version control concepts, Git architecture, terminology, remote repositories.
- Git workflows Branching, commits, merges, reset, revert, detached head states, and cherry-picking.
- Conflict resolution, pull requests, code reviews, and branching strategies.



Session 7: CI/CD With GitHub Actions

Master GitHub Actions to streamline software delivery and automation. This session covers CI/CD fundamentals, workflow design, and best practices to build scalable and efficient pipelines.

- Build and configure workflows Automate with jobs, steps, events, triggers.
- Optimize execution and outputs Leverage matrix builds, artifacts, and reusable workflows.
- Apply real-world CI/CD Use secrets management, common steps, and best practices.

Session 8: GitOps with ArgoCD

Leverage GitOps principles with ArgoCD to automate deployments. Learn how ArgoCD continuously syncs your infrastructure with Git, ensures declarative deployments, and integrates with Helm for advanced configurations.

- Set up ArgoCD and connect it to a Git repository.
- Configure auto-sync, self-healing, and rollback mechanisms.
- Deploy and manage applications using Helm and Kustomize.

Session 9: Monitoring with Prometheus

Master monitoring and alerting with Prometheus and Grafana. Learn to collect system metrics, visualize data, and configure alerts for proactive monitoring of applications and infrastructure. Set up alerts, create dashboards, and centralize logs for seamless troubleshooting.

- Set up Prometheus for metrics scraping and storage.
- Build custom Grafana dashboards for observability.
- Configure Alertmanager to send notifications for failures.



Session 10: AWS

Explore AWS cloud infrastructure and learn to deploy and manage scalable virtual servers. Gain hands-on experience in instance provisioning, security, storage, and load balancing to optimize your cloud environment.

- Launch and configure instances Use AWS CLI, Elastic IPs (EIP), and IAM roles.
- Manage networking and storage Set up security groups, key pairs, SSH access
- Scalability and performance Implement load balancers, automate deployments.

Session 11: Terraform

Master Infrastructure as Code (IaC) with Terraform to automate cloud provisioning. Learn how to define, manage, and optimize infrastructure using declarative configuration files and state management. Use modules, providers, and variables to ensure reliable, repeatable deployments.

- Understand Terraform providers, resources, and modules.
- Manage infrastructure state and backend configurations.
- Implement best practices for reusable and scalable Terraform modules.

Session 12: AWS Advanced

Gain hands-on expertise in designing Virtual Private Clouds (VPCs) in AWS. This session covers core networking components, security best practices, and integrating stateful services for scalable cloud deployments.

- Build and configure VPCs Set up CIDR blocks, subnets, route tables, and networking services.
- Secure cloud networks Implement security groups, network ACLs, and traffic protection strategies.
- Integrate stateful services Deploy RDS (MySQL), Kubernetes clusters, and NAT/Internet Gateways.



Session 13: AWS - Secrets | Lambda

Unlock the power of AWS Lambda and Secrets Manager to build secure, scalable, and event-driven cloud applications. Learn to deploy k3s clusters, manage secrets efficiently, and integrate messaging with SQS.

- Build serverless applications Use AWS Lambda for event-driven compute and automation.
- Manage secrets Store and retrieve credentials with AWS Secrets Manager.
- Set up k3s clusters, SQS queues, and LocalStack for local testing.

Session 14: Configuration Management (Ansible)

Learn how to automate and manage infrastructure using Ansible. Understand playbooks, ad-hoc commands, inventory management and the role of YAML in defining system configurations. Automate configurations, simplify complex tasks and secure environments with best practices.

- Develop Ansible playbooks and YAML-based configurations.
- Manage Ansible inventory files and host groups.
- Execute ad-hoc commands and use Ansible modules effectively.

Session 15: Implement E2E DevOps Architecture

Apply everything you've learned to full End to End scenarios. Collaborate on DevOps workflows, troubleshoot challenges, and prepare confidently for industry demands.

- Solve real-world DevOps challenges Apply automation, containerization, and cloud infrastructure strategies.
- Collaborate on workflow implementation Work in teams to optimize CI/CD, monitoring, and security practices.
- Prepare for industry demands Conduct mock interviews, receive expert feedback, and refine your technical skills.



Final Project: Building a Full-Scale DevOps Pipeline

The final project is a rolling, multi-phase assignment designed to reinforce key DevOps skills. Participants will progressively build a fully automated DevOps pipeline, covering:

- **Phase 1:** Develop and containerize a Python Flask application, pushing the image to Docker Hub.
- Phase 2: Deploy the application on Kubernetes using ConfigMaps, Secrets, and auto-scaling mechanisms.
- **Phase 3:** Implement version control using Git, set up CI/CD pipelines with GitHub Actions, and manage deployments with Helm.
- **Phase 4:** Apply GitOps principles with ArgoCD for automated deployments and implement monitoring with Prometheus and Grafana.



LEARNING OUTCOMES

On successful completion of this course, you'll be able to

- Understand and apply DevOps principles and practices.
- Master tools like Docker, Kubernetes, Git, Terraform, Ansible, and Prometheus.
- Implement CI/CD pipelines and GitOps workflows.
- Deploy and manage applications on cloud platforms using best practices.
- Monitor and troubleshoot applications using Prometheus and Grafana.
- Find a relevant position in the DevOps world.

Note: All sessions include hands-on exercises and real-world scenarios to ensure practical understanding.





WORLD CLASS DEVOPS TRAINING, WORLDWIDE COMMUNITY

We reserved a seat for you!

APPLY NOW

