Kamil KHAN DevOps Engineer

Dynamic DevOps professional with 7 years of experience in IT. Skilled in employing Bash, Python, Proxmox, VMware, Linux servers (Debian and RPM-based distros), Ansible, Docker, and Windows Server. Eager to heighten proficiency in cloud services including AWS, Azure, and Google Cloud Platfor*m.*

I am a recognized disabled worker

Work Experience

• 10/2022 • MONTPELLIER, OCCITANIE, FRANCE

Master 2
EPITECH - European Institute of Technology

• 10/2022 – 01/2024
• MONTPELLIER, OCCITANIE, FRANCE

Devops Engineer
Occitanie en scène

- Placed preventive and corrective maintenance (hardware and software) of client machines at both Montpellier and Toulouse sites
- Took off incident tickets and supplied remote and on-site support (Montpellier / Toulouse), user training, and documentation writing
- Performed system updates, application testing, and software deployment (utilizing technologies such as NetBoot, Deploy Studio, Munki, MCX, etc.)
- Established and updated technical documentation and procedures using tools like DomainMod, YesWiki, Wordpress, Netbox, etc.
- Offered user support during actions or events involving digital tools (payment terminals, video streaming, etc.)
- Directed research, tested new solutions, and used new tools
- Cared network (firewall, WAN links, VPN, switches, etc.), supervised systems, and covered IP telephony
- Distributed Mac OS X servers (services admitting Kerio, OpenDirectory, AFP/FTP/SMB shares, Apache, MySQL, Radius, etc.)
- Administered Debian and CentOS Linux servers (services like Apache, MySQL, LDAP, VPN, iptables, fail2ban, mailman, postfix, nextCloud, etc.)
- Handled virtualized and containerized infrastructures (Proxmox / Docker)
- Secured services and addressed backup solutions
- Liaised with external vendors (hosting providers, webmasters, developers, etc.)

Work Experience

- Went through automatized deployment pipelines using Jenkins, cutting deployment time by 50%.
- Negociated and kept infrastructure in AWS cloud environment, assuring high availability and scalability of services.
- Joined forces with development and operations teams to streamline processes and better overall efficiency.
- Carried on regular performance monitoring and optimization of system resources to enhance system reliability and performance.

• 07/2020 – 09/2020 • 16 RUE ALBERT LOUGNON

Support Specialist
NXO Océan Indien

- Provided technical support to over 500 clients, resolving 95% of issues within 24 hours and maintaining an average satisfaction rate of 4.5/5.
- Produced and implemented comprehensive training programs for new employees, ensuing in a 50% reduction in onboarding time and improved team performance.
- Collaborated with cross-functional teams to identify and enforce process improvements, conducting in a 30% reduction in ticket resolution time and a 20% improvement in customer retention.
- Oversaw a team of 10 support specialists, ensuring timely and consistent communication with clients and achieving a 99% compliance rate with Service Level Agreements (SLAs).

Education

• 10/2022 – 10/2024

Devops Engineer | Master's degree
EPITECH - European Institute of Technology

- Applied continuous integration and continuous

french

Montpellier, France

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Education

deployment pipelines using Jenkins, significantly reducing deployment time for software releases by 50%.
- Cooperated with cross-functional teams to automate infrastructure provisioning on AWS cloud platform, resulting in a 30% decrease in manual configuration errors.
- Managed and monitored server environments, guaranteeing high availability and scalability for multiple web applications.
- Dealt regular system performance analysis and optimization, leading to a 20% improvement in overall system efficiency.

- 10/2022 – 08/2024

Network and System Administration/Administrator | Master's degree
EPITECH - European Institute of Technology

- 01/2019 – 01/2022

License in computer science
SUPINFO

- Completed rigorous coursework in computer science fundamentals, letting in algorithm design, data structures, and software engineering.
- Developed a mobile application as part of a team project, showcasing proficiency in programming languages such as Java and Swift.
- Participated in a research project on artificial intelligence, contributing to the design and implementation of machine learning algorithms.
- Presented findings from a capstone project on cybersecurity at a student symposium, demonstrating strong communication and presentation skills.

Languages

English **Full**
French **Native**

Hobbies

Exploring distant lands

Getting lost in a good book

Capturing moments

Hobbies

Feeling the music

doing massage

Strengths

Curious # motivated # determined
proactive # adaptable # detail-oriented

Skills

Containerization with Docker
Version control with Github
Shell scripting with Bash
Automation with Python/Terraform

Personnal projects

Project Title: Agile DevOps Transformation and Shared Hosting Platform Development

Objective:
Spearheaded the adoption of DevOps practices to accelerate development cycles, emphasizing rapid iteration, testing, and deployment. Led the implementation of a shared hosting platform to enhance developer productivity and streamline application deployment.

Key Contributions:
- **Agile Project Management:** Introduced Scrum methodology to facilitate agile development and iterative improvements.
- **Deployment Optimization:** Addressed deployment bottlenecks by developing a streamlined process for server automation and tool deployment.
- **Technology Implementation:** Specified technology requirements for the shared hosting platform, including GitLab for version control and Ansible for configuration management.

Personnal projects

- **Security Compliance:** Ensured compliance with security standards despite restrictions on Docker usage, implementing alternative strategies for containerization and deployment.

- **Infrastructure Setup:** Established a foundational infrastructure comprising an online GitLab server, service installations (Nginx, PHP-FPM, MySQL), and an online registry for application builds.

- **CI/CD Pipeline Development:** Created comprehensive CI/CD pipelines for two applications (Laravel backend and Angular frontend), integrating build, test, and deploy stages with minimal downtime.

- **Automated Deployment:** Utilized Ansible playbooks for automated deployment, achieving near-instant application availability post-deployment.

- **Database Migration Strategy:** Implemented an automatic migration mechanism for evolving database schemas, enabling quick rollbacks in case of regressions.

Results:

- Successfully deployed a shared hosting platform enhancing developer efficiency and application deployment speed.

- Demonstrated proficiency in agile project management, CI/CD pipeline development, and infrastructure automation.

- Highlighted commitment to security and compliance, adapting to constraints and optimizing processes accordingly.

Project Title: Infrastructure Management and Incident Response Challenge
Objective:
To evaluate my skills in managing and responding to incidents within a simulated infrastructure environment, aiming to ensure high availability and reactivity to potential disruptions.

Personnal projects

Key Contributions:

- **Initial Assessment & Tool Integration:**
- Conducted an extensive exploration of the provided infrastructure, integrating custom tools for monitoring, automated deployments, backups, and restores. This phase allowed for thorough testing and preparation for real-world scenarios.

- **Incident Handling:**
- Successfully managed various incidents, including service cessation, resource saturation, database crashes, and container failures, demonstrating quick reaction times and effective problem-solving abilities.

- **Restoration & Analysis:**
- Restored services to their pre-incident states promptly, providing detailed analyses of the causes and corrective measures implemented to prevent future occurrences.

- **Monitoring & Reporting:**
- Utilized advanced monitoring tools and dashboards to maintain visibility into system performance and health, ensuring timely notifications to stakeholders.

- **Resilience Improvement Strategies:**
- Identified and proposed enhancements to increase the infrastructure's resilience against similar incidents, contributing to long-term stability and reliability.

Results:

- Demonstrated exceptional reactivity and problem-solving skills in handling a variety of infrastructure-related incidents.

- Showcased proficiency in using monitoring tools and dashboards to maintain high availability and functionality of critical applications.

- Presented actionable insights and improvement strategies to enhance the infrastructure's resilience against future incidents.

Project Title: Azure Cloud Infrastructure Deployment

Personnal projects

and Performance Comparison
Objective:

To design, deploy, and compare two cloud computing models on Azure,
focusing on cost-effectiveness, scalability, and operational efficiency.

Key Contributions:

- **Azure Test Lab Deployment:** Successfully deployed a highly available application on Azure, leveraging Azure DevTest Labs for efficient resource management.

- **Infrastructure Models Comparison:**
- Configured and deployed both Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) infrastructures using Azure virtual machines and services, comparing their performance in terms of cost and scalability.

- **Automation and Reproducibility:**
- Utilized Terraform for Infrastructure as Code (IaC) management, ensuring reproducibility and efficient management of cloud environments. Automated the deployment process to enable on-demand spinning up and tearing down of infrastructure.

- **Tool Integration:**
- Integrated Azure Web Apps, Ansible, and Docker into the deployment process, exploring their effectiveness in enhancing application deployment and management.

- **Cost Optimization and Compliance:**
- Managed resources responsibly, adhering to Azure policies and minimizing costs through efficient shutdown of virtual machines at the end of each day.

- **Performance Testing and Best Practices:**
- Conducted stress tests on the deployed applications, investigating response status and time, and compared resource consumption and public prices between the IaaS and PaaS models. Provided guidance on resource management best practices, including tagging and naming conventions.

Results:
- Demonstrated proficiency in deploying and managing cloud infrastructures on Azure, with a focus on cost optimization and scalability.

- Showcased the ability to integrate and leverage various tools (Terraform, Ansible, Docker) for efficient cloud operations.

- Delivered a comprehensive comparison of IaaS and PaaS models, highlighting their strengths and weaknesses in terms of performance and cost.

- Contributed to the development of best practices for cloud resource management, ensuring efficient and compliant operations.

Personnal projects

Project Title: Kubernetes Cluster Deployment and Application Modernization
Objective:
To design, deploy, and optimize a Kubernetes cluster, incorporating
best practices in container orchestration and application deployment.

Key Contributions:

- **Kubernetes Cluster Design and Deployment:** Engineered a fully-equipped Kubernetes cluster, integrating essential management tools and administration components.

- **Container Orchestration Tools:**
- Implemented nginx-ingress for internal load balancing, Kubernetes Dashboard for user-friendly management, kube-prometheus for monitoring, and Loki for log collection and visualization. Utilized Kustomize for GitOps repository management.

- **Application Deployment:**
- Converted and deployed an existing Docker Compose application using Helm charts, ensuring seamless transition to Kubernetes. Automated deployment and verified application status.

- **Best Practices Adoption:**
- Adhered to Kubernetes best practices, including defining resource limits, using secrets for sensitive data, labeling resources, adding redundancy with replicas and affinity rules, and implementing persistent storage and backup systems.

- **Security Enhancements:**
- Added a validating webhook for request

Personnal projects

validation (OPA) and authentication to Kubernetes API and tools (Dex OAuth Proxy), enhancing security and control.

- **Resource Management:**
- Leveraged Terraform for Infrastructure as Code (IaC) management, ensuring efficient resource utilization and cost optimization within Azure DevTest Labs environment.

Results:

- Successfully deployed a robust Kubernetes cluster, showcasing advanced container orchestration and application management skills.
- Demonstrated proficiency in Kubernetes best practices, leading to improved application performance, security, and resource efficiency.
- Showcased the ability to automate deployment processes and manage complex Kubernetes environments effectively.
- Enhanced security with encryption using Let's Encrypt and cert-manager.
- Streamlined component management with ArgoCD.
- Improved Prometheus and Loki accessibility with multi-tenancy and authentication via kube-rbac-proxy.
- Evaluated and reinforced Helm artifact security.
- Defined granular access permissions for the orchestrator.
- Optimized network access and ensured zero-downtime deployments.