Peter Bacsai

Senior DevOps Engineer

As a Senior DevOps Engineer, I have expertise in operating and building Linux-based cloud infrastructure on the Google Cloud Platform using Terraform. Additionally, I have experience with AWS cloud solutions. My experience includes working with a range of technologies such as Kubernetes, Helm, ArgoCD, Traefik, GitLab, HAProxy, Puppet, HashiCorp products (Vault and Consul), Thanos, Prometheus, Grafana, Alertmanager, Elasticsearch, Kibana, Logstash, and more. I have utilized several programming languages throughout my career, including Python, Java, PHP, and have recently started to explore Go. Furthermore, I excel in managing complex cloud infrastructure environments and implementing security and compliance best practices. During my career, I have managed small and medium-sized teams during the last 19 years ranging between 4 and 20 people. I'm passionate about technology and happily expand my knowledge in cutting-edge technologies, I enjoy working in a team of like-minded engineers.

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Work Experience

Consultant and Lead Architect

Schrack Seconet AG

11/2022-Present — Canada

- My responsibilities as a Consultant include improving IT processes and infrastructure within the company. I coach the CTO by participating in decision-making and identifying areas for improvement in His knowledge. Additionally, I recommend training and practices to enhance their ability to lead an IT team effectively. I define processes aimed at reducing downtime and increasing overall client satisfaction.
- I create yearly infrastructure development plans and break them down into actionable tasks for the team and hold scrum ceremonies to ensure the execution of the plans and the success of the sprints. Additionally, I am responsible for selecting and mentoring IT colleagues in the team of 5 employees, ensuring their success in their respective areas.
- As an Lead Infrastructure Engineer, I constructed a georedundant Kubernetes cluster, which hosts various components of the infrastructure, including a Ceph Cluster, ArgoCD, a monitoring stack of Grafana, Alertmanager, and Prometheus, Minio S3 Object Store, Mariadb Galera Cluster, Postgresql Cluster, Nextcloud, Gitlab, Vault, Consul, Spam filter, DNS, as well as ITIL Change and Problem management software. The infrastructure code is written in Ansible, Kubernetes manifests, and Helm. The deployment of most components is done using GitOps, primarily deployed by ArgoCD. Additionally, virtual machines in VMware and the bare metal servers are deployed with Foreman, Cloudinit templates, and Ansible, which is fully automatized.
- The Staging infrastructure is running on a Docker Swarm, managed through Portainer, and Docker Compose manifests.

Senior DevOps Engineer

Emarsys Technologies by SAP

06/2022-12/2023 — Budapest

- My responsibility on the team was to create a monitoring infrastructure in the GCP cloud, develop a new solution for the Engineering team using infrastructure as code, maintain the current codebase, and participate in operational tasks related to the infrastructure. We utilized various software components, including Jenkins for CI/CD, Grafana, Prometheus, Alertmanager, and Thanos for monitoring, as well as Ansible, Terraform, and Puppet for provisioning. Additionally, we employed Vault and Consul for secret management and auto-discovery.
- The on-premises infrastructure is provisioned utilizing infrastructure as code and technologies such as Foreman, Puppet, Portainer for Docker Swarm, and Docker Compose. Additionally, the cloud infrastructure was configured using Terraform.
- The main infrastructure consists of several on-premises server rooms and a complex software architecture in order to meet market demands. Emarsys successfully sent out over 5 billion emails for their clients between Black Friday and Cyber Monday 2023.
- During my work, I gained experience in several technologies and industry best practices, utilized my programming skills in python, and go.

Principal DevOps Engineer

Continental Automotive Hungary Kft.

08/2019-06/2022 — Budapest

- During my work years, the team set up and maintained a 53 Petaflops Deep-Learning cluster consisting of NVIDIA DGX and DGX2 machines On-Premises, with a focus on the possibility to scale out some workloads to AWS. We utilized cutting-edge technologies such as IBM GPFS Storage and Mellanox Infiniband network, as well as Nvidia DGX servers, in addition to industry best practices. We built the software environment using Ansible for infrastructure as code and Foreman for bare metal provisioning, we established a Kubernetes Deep Learning cluster to achieve the autonomous driving goals of the industry.
- This system was built to train neural networks for the sensors, and the Support team supported more than one hundred programmers and specialists in this field. We created best practices guides and documentation for the teams to achieve better results. The main goal was to improve the SLA from 80% to 99.95% uptime and reduce the response time for problems from 8 hours to 30 minutes during the first year of production.
- In terms of release automation, we used Kubernetes, Ceph, S3 store (Minio), Jenkins, Gitlabs, Helm, Docker compose, and Ansible as well as many other software solutions to automate the provision process. Additionally, I have developed a Python-based management report system that delivers useful information to higher management, and this has been used to facilitate demand management decisions.

Work Experience

Chief Technology Officer

Adaptive Recognition Hungary

06/2015-06/2019 — Budapest

- I have a wealth of experience as a Chief Technology Officer, with a focus on leading teams and achieving impressive results. In this role, I led a development and engineering team of 7 direct subordinates and achieved the most reliable Automatic Number Plate Recognition system worldwide with Abertis Autopistas in Barcelona. This system achieved a TÜV audited 99.995% vehicle detection rate, demonstrating my technical and leadership expertise and ability to deliver exceptional results.
- During my years with the company, I improved the efficiency of the team by 30% using Agile methodology. Additionally, I reduced development costs by 60% in two consecutive years not to mention that I was able to shorten the delivery time of software products to 50% of the original timeline, demonstrating my ability to optimize the development process and deliver results quickly.

Hard Skills

- Linux, Unix system administration (17 years)
- Docker (6 Years)
- Vmware (5 Years)
- Kubernetes + Helm (4.5 Years)
- Python (4 Years)
- Ansible + DevOps (4.5 Years)
- Terraform + Gitops (2 Years)
- SQL Postgresql + Mysql (11 Years)

Soft Skills

- Verbal and Written communication
- Building trust
- Presentation
- Confidence and Clarity
- Listening

Education

BSC Electric Engineering @ Budapest Polytechnic. — 06/2008

Certifications

Leadership Development Program 1. (Virtual Leadership) @ Develor Zrt. — 06/22/2021

Mellanox Infiniband Professional @ Mellanox — 07/05/2020

IBM Spectrum Scale Expert (Level II) @ IBM — 06/03/2020

Using Python for Research @ HarvardX — 06/28/2020

Languages

- English IELTS 8.0
- Hungarian

Interests

- Technology
- Ice Hockey
- Latin Dances