Gunter Miegel

Dresden, Germany

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15 years in operations, infrastructure, software engineering
People-oriented IT generalist and creative problem-solver

in LinkedIn   GitHub

Work Experience

Head of IT | HolyPoly | Dresden, Germany   08/2021 – 11/2024

Responsible for corporate IT: strategy, infrastructure, services, software development, operations and security

- Built and led a 5-member remote IT team from the ground up, creating a team with high resilience and self-sufficiency by maximising the psychological safety.
- Continuous optimization of development and operational methodologies of my team, reducing cycle time by 50% while maintaining high-quality IT support services.
- Designed software architecture for plastics recycling programs of multinational toy and baby product companies, enabling simple integration of complex reverse logistic processes into customer company websites and time saving check-in of recycled goods return parcels for batch tracing.
- Developed a Bluetooth-WebSocket bridge service for a handheld X-ray fluorescence device. Accelerating the detection of inorganic impurities in recyclable plastic toys and power tool housings by 200%, necessary to finish projects in-time and empowering corporate clients to make data-driven decisions on recycled plastic usage in new products based on millions of data points.
- Introduction of ERPNext as Open Source ERP software, streamlining business processes and reducing application and data fragmentation. With adapting ERPNext to cloud-native patterns quick deployment of instances within minutes instead of hours was possible, speeding up business process integration development.
- Established an IT security baseline with the limited resources of an startup by pragmatically applying Zero-Trust and Security-First security models to software development and infrastructure operations to meet IT compliance requirements by the procurement of global corporations. This enabled HolyPoly to receive orders and revenue by these customers.
- Responsible for establishing an ISMS to meet internal and business customer IT security and data protection compliance requirements.

Senior Site Reliability Engineer | Startnext | Dresden, Germany   11/2019 – 07/2021

Operations of the crowdfunding platform infrastructure

- Transformed the legacy PHP crowdfunding application to run on a container-based infrastructure enabling horizontal scaling with seamless platform code roll-outs via CI/CD pipelines. Improving software QA, developer and user experience and time spent by developers for crowdfunding platform updates.
- Migrated crowdfunding platform storage from NFS to Ceph distributed storage enabling concurrent read and write access. Necessary for horizontal scaling and seamless platform code roll-out.
- Redesigned the monitoring stack using Telegraf, Loki, InfluxDB, Alertmanager, and Grafana. Leading to reduced operational costs and improved monitoring efficacy while also providing better business intelligence capabilities.

Coding Instructor | Self-Employed | Dresden, Germany   08/2019 – present

Weekly coding courses for 3rd and 4th graders

Founder and Lead Software Engineer | Coinboot   08/2017 – 09/2022

Created Coinboot, an Open Source framework for diskless GPU computing clusters (Video of conference talk)

- Deployed Coinboot to over 35,000 nodes with 60,000 GPUs in data centers globally. Running immutable and configuratione-drift-free Infrastructure and enabling build-up and operations of GPU computing clusters with minimal TCO, proving that Coinboot is highly efficient.
- Engineered a lightweight (105 MB) network-bootable diskless Linux image optimized for scalability. Allowing Coinboot to run effectively on thousands of nodes using standard 1 Gbit/s network hardware.
- Created a user-friendly plugin system enabling customization and different computing workloads without rebuilding the boot image.

DevOps Engineer | Cloud&Heat | Dresden, Germany   04/2014 – 10/2019

Responsible for infrastructure operations, storage migration, and software development

- Led the planning and development of a mobile GPU container datacenter software stack. Delivering within a few months, securing the company's future with a two-digit million revenue (Video Link).
- Automated the setup and configuration of Ceph as unified OpenStack storage backend, replacing the existing OpenStack Swift and GlusterFS setup. Deployed successfully at petabyte scale, providing an optimized setup for heterogeneous disk and rack configurations while reducing complexity and increasing storage performance.
- Managed OpenStack operations, monitoring, and integration in highly-distributed micro datacenters with efficient waste heat reuse.

Parental Leave   11/2012 – 08/2013

Linux-Systemadministrator | BIT.Group | Dresden, Germany 06/2010 – 03/2014

Managed cloud infrastructure for SAP Cloud

Linux-Systemadministrator | drinet | Dresden, Germany 09/2009 – 05/2010

Provided IT support and infrastructure management

Education

State-certified technician for information and communication technology 2007 – 2009

Berufsfachschule für Wirtschaft und Technik des TÜV Rheinland, Dresden, Germany
15 weeks internship at Schlittermann - internet & unix support

Mechatronics 2004 – 2006

Technical University Dresden, Germany | No degree

Mechanical Engineering 2003 – 2004

University of Applied Sciences Landshut, Germany | No degree

Abitur (General higher education entrance qualification) 2000 – 2003

Berufliches Schulzentrum für Technik Zittau, Germany

Skills and Experience

Interpersonal	High Empathy, Strong Levelheadedness, Flexible Leadership	**Cognitive**	Attention to Detail, Divergent and Analytic Thinking, Balanced Pragmatism
Operating Systems	Linux: Debian, Ubuntu, Alpine, BSD: OpenBSD, FreeBSD	**Programming Languages**	Bash/Shell, Python, Ruby
Configuration Management	Ansible, Chef	**Infrastructure as Code**	Terraform(GCP)
Container Technology	Docker, Kubernetes, K3s	**Dashboards and Analytics**	Grafana
Enterprise Resource Planning	ERPNext	**CI/CD**	GitLab CI, GitHub Actions, Travis CI
RDBMS	MySQL/MariaDB, SQLite	**NoSQL**	MongoDB
Web Servers	Nginx, Apache HTTP Server	**Backup and Restore**	Bareos, BackupPC, Restic
Blockchain Technology	Bitcoin, Ethereum	**Directory Services**	OpenLDAP
Disaster Recovery	Relax-and-Recover	**DNS**	BIND9, Dnsmasq
IaaS	OpenStack	**ISMS**	ISO/IEC 27001, CISIS12
Load Balancer/Reverse Proxy	Traefik, HAProxy	**E-Mail (MTA, MDA)**	Exim, Postfix, Dovecot
Monitoring	Netdata, Telegraf, Prometheus, Check_MK	**Packet Filter/Firewall**	iptables, nftables, OPNSense, pf, UFW
Password Manager	Bitwarden, pass	**PKI/X.509**	OpenSSL
Source Code Management	GitHub, GitLab, BitBucket, Gitea	**Version Control**	Git
Storage	Ceph, NFS, ZFS, Samba, OpenStack Swift, GlusterFS, DRBD, Amazon S3	**TSDB**	InfluxDB
Collaboration Tools Management	Google Workspace, Slack	**Virtualization**	KVM, libvirt/virsh, VirtualbBox, Vagrant
VPN	WireGuard, OpenVPN, IPsec	**Web Testing**	Playwright

Languages

German	Native Speaker	**English**	CEFR C1 Advanced