# Tim Meusel

*DevOps Engineer*

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*Driving License*
*★ 1993-04-15*

*DevOps is all about empathy*

Rob Nelson

## Skills

### Expert Skills

| | | | |
|---|---|---|---|
| Software | Puppet*†, installimage* | Operations | Archlinux†, Gentoo, QEMU/KVM |

### Development

| | | | |
|---|---|---|---|
| Languages | C#, Python, Shell/Bash, Ruby | Frameworks | RSpec, Beaker*†, Sinatra, Rails |
| Databases | MySQL, PostgreSQL | Methods | Object Oriented Programming, MVC, Unit Tests, UML |
| Source Management | Git, SVN | Tools | Bitbucket, GitHub, GitHub Actions, Travis CI, Jenkins |

### Systems and Networks Administration

| | | | |
|---|---|---|---|
| Web | Apache, Lighttpd, Nginx, Varnish, Squid, proftpd, HAProxy | Monitoring | ELK-Stack, Zabbix, Munin, Prometheus, Graphite, Grafana, Graylog, Collectd |
| Mail | Postfix, Dovecot, Amavis | Backup | Duply, Borg |
| Installation / Deployment | Bootstrapping, Kickstart, Puppet*†, installimage* | Infrastructure Software | ISC-DHCPd, OpenVPN, hpa-tftpd, NFS, Marmoset, OpenLDAP |
| Operating Systems | GNU/Linux (Debian, Ubuntu, RedHat, Archlinux†, Gentoo), FreeBSD, pfSense | Databases | MySQL, PostgreSQL |
| Virtualization | VMWare, Docker, QEMU/KVM, libvirt, Parallels Cloud Server | Security | SSL, PGP/GnuPG, OpenSSH, SELinux, Threat Modeling, Server hardening |
| DNS | Unbound, Bind, Dnsmasq, PowerDNS | Networking | Cisco routing and switching, VLANs, Network design and security, IPv6, Layer 2 and 3 debugging, Bird |

*Maintainer
†Contributor

## Experience

**2014**

**DevOps Engineer**, *Hosteurope GmbH (acquired by GoDaddy EMEA)*, Cologne.

DevOps Engineer, System Administrator
– DevOps Engineer:
  - Architected and deployed a scaleable ELK-Stack with Graylog;
  - Planned and executed migrations from Puppet versions 3 to 4 to 5 to 6;
  - Wrote and contributed to 180+ public Puppet modules, (includes facts, types & providers, unit and acceptance tests);
  - Designed and built a technical fabric to provision physical servers on premise and in the cloud for multiple brands;
  - Planned a cloud platform with Qemu and Kubernetes, including a scaleable network;
  - Provided self services for developers with Puppet (Consul, Vault, Kafka, Databases, Firewalling, Monitoring);
  - Mentored students for their Bachelor and Master thesis;
  - Product Owner for multiple infrastructure services.
– System Administrator:
  - Operated multiple Puppet-managed Cloud platforms with more than 3300 nodes;
  - Tested and evaluated new hardware regarding power consumption, efficiency and cloud instance density;
  - Enhanced the hardware monitoring to predict disk failures;
  - Automated and optimized the consolidation of legacy platforms.

**2012**
**2014**

**Systems Engineer**, *Hetzner Online AG*, Falkenstein.

Led a cloud platform, maintained datacenter infrastructure
– Rebuilt Puppet infrastructure for 1500+ servers;
– Migrated servers from Puppet 2 to 3;
– Implemented cgroups for resource management in a cloud environment;
– Operated the base infrastructure of a datacenter with 200,000+ servers, including authoritative and recursive nameservers, installation environment, package mirrors, DHCP and NFS clusters;
– Responsible for the cloud platform. Maintained, developed and improved the current platform with 22,000+ virtual instances, including capacity management;
– Planned and evaluated a new cloud platform with distributed and local storage;
– Provided third level support for the cloud- and datacenter infrastructure systems;
– Monitored of a fleet of servers with zabbix;
– Wrote technical documentation;
– Developed a scaleable monitoring solution with autodiscovery based on Zabbix.

**2020**

**Arch Linux Trusted User**, *Arch Linux*.

Maintain packages in the official repository,

**2016**

**Vox Pupuli Project Management Committee**, *Vox Pupuli*.

Strategic Development, Leadership, Community Representative
– Provide feedback, guidance and knowledge transfer across 140+ contributors;
– Onboarding for new community members;
– Mitigated security issues in Puppet modules;
– Kept track of outdated module/gem dependencies and regular releases;
– Represented the community at events and conferences;
– Escalated bugs and feature requests from the community to Puppet Inc.

**2015** | **Puppet Contributor**, *Vox Pupuli / Puppet community*.

Development, bugfix and documentation
- Developed and realized a migration plan from Puppet Version 3 → 4 → 5 → 6;
- Reviewed and merged incoming patches for 150+ Puppet modules and tools;
- Maintained the test matrix for 130+ Puppet modules and do release management;
- Provided patches and reviews for all major Puppet Inc. owned modules;

**2015** | **Developer and Maintainer**, *VirtAPI-Stack*.

Architecture design and development
- Designed and documented an API for a cloud infrastructure;
- Maintained a public fork of the installimage;
- Created a live linux image for rescue operations (LARS).

## Education

**2014**
**2018** | **Equivalent to Bachelor of Engineering for Computer Science**, *Heinrich-Hertz-Europakolleg der Bundesstadt Bonn*, Valedictorian.

## Certifications

**2017** | **Cisco Certified Network Associate**, *Cisco Inc*.

**2017** | **ITIL® v3 Foundation Examination**, *AXELOS Limited*.

**2013** | **Puppet Fundamentals Administrator**, *Puppet Inc*.

## Publications

**2017** | **Datawarehousing for Cloud Computing Metrics**, *https://bastelfreak.de/thesis-de.pdf*.

Analyse software to measure cloud metrics in a datawarehouse style (mentored by David Schmitt, written in German)

**2015** | **Conference Speaker**, *https://github.com/bastelfreak/talks*.

Speaker on conferences and meetups about DevOps culture, community management and Puppet

**2015**
**2017** | **Network Design Principles**, *https://github.com/bastelfreak/talks*.

Taught multiple lessons about network design in datacenters and carriers, including routing, switching, network-security and IPv6

**2015** | **VirtAPI Paper**, *https://bastelfreak.de/virtapi.pdf*.

Documentation about a self-designed API to manage a QEMU cloud environment with Puppet

## Languages

German | First language

English | Fluent *Daily practice, conference talks and lectures given in English*