# Profile and project history

## Englisch 📰

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liability insurance:



# Willingness to travel / availability in time and space

Preferably conurbations with train connections (all over germany).: Maximum 80% on site.

# Skills

### Legend

***	<i>basic</i> s or a little rust
***	advanced knowledge
***	profound knowledge
****	very experienced

# Language skills

• German: mother tongue

• Englisch: ~B2

#### Products and tools

•	Ansible:	***
•	Ansible tower:	***
•	Apache:	***
•	Artifactory:	***
•	Atlassian confluence:	***
•	Atlassian JIRA:	***
•	Atom IDE:	***
•	AWX:	***
•	Azure:	***
•	Bootstrap:	***
•	Software containerization:	****
•	Deb package manager:	***
•	Dracut:	***
•	Embedded-systems:	***
•	Git:	***

•	GitLab CI runner:	***
•	GitTea / Gogs:	***
•	Grafana:	***
•	IoT:	***
•	Jenkins (pipieline):	***
•	Kubernetes:	***
•	KVM:	***
•	Mercurial:	***
•	Microsoft visual code:	***
•	Nexus:	***
•	NFS:	***
•	Nginx:	***
•	OpenShift:	***
•	Ptxdist:	***
•	Puppet:	***
•	PXE: boot	***
•	REST:	***
•	RPM package manager:	***
•	RunDeck:	***
•	Saltstack:	***
•	SVN:	***
•	Terraform:	***
•	Xwiki:	***

# Concepts and patterns

•	Bare metal bootstrapping (Linux):	***
•	CI/CD concepts:	***
•	DevOps concepts:	***
•	Kanban:	***
•	Object-oriented programming:	***
•	Public-Key-Infrastruktur (PKI):	***
•	Revers proxy:	***
•	Scrum:	***
•	"You build it, you run it":	***
•	Product evaluation:	***
•	Proof of concepts:	***
•	Reengineering:	***
•	Transformation and extension:	***
•	zero trust network:	***

# Operating systems

•	CentOS:	***
•	Debian:	***
•	Red Hat Enterprise Linux:	***
•	SUSE Linux Enterprise Server:	***
•	Ubuntu:	***

# Programming languages and tools

•	AWK:	***
•	Bash:	***
•	Bottle:	***
•	C# (Only under Linux):	***
•	C/C++:	***
•	C/C++ Web- and GUI-programming:	***
•	Cross-Compiler:	***
•	GNU build system:	***
•	GNU compiler collection:	***
•	GNU debugger:	***
•	Go/Golang:	***
•	Google Test (C++):	***
•	Groovy (in context of Jenkins):	***
•	JavaScript:	***
•	Make:	***
•	Perl:	***
•	PHP:	***
•	Python:	***
•	Qt4:	***
•	Qt5:	***
•	WebPy:	***
•	Regex:	***
•	rteger.	<b>A</b> A A A

# Databases

•	CouchDB:	***
•	InfluxDB:	***
•	MariaDB:	***
•	MySQL:	***
•	PostgreSQL:	***
•	SQLite:	***

# Public Clouds

<ul><li>Azure:</li></ul>	***
• AWS:	***
<ul><li>GCP (Google):</li></ul>	***
<ul><li>OpenStack:</li></ul>	★ជជជ

# Project history

# Replacement of a Docker Swarm cluster by Kubernetes and a PKI implementation

*Time period* 05/2020 - 02/2021

**Company** Fonds Finanz

*Industry* Insurance and finances

**Team size** 2-7 people

**Role/Position** DevOps Engineer / Consultant

Tasks

- Analysis & optimization of the current system landscape and testing of alternative infrastructures
- Support in the improvement of development processes and runtime environments
- Introduction of Ansible
- Proof of concept with Kubernetes (k3s) on VMWare (on-premises)
  - Rollout and reset of the Kubernetes cluster via GitLab CI Runner and Ansible
  - o Introduction of Helm Charts
  - Integration of an NFS-Storag into the Kubernetes-Cluster
  - Presentations of the concept
- Creation of concepts and decision templates for the migration to a hybrid cloud infrastructure
  - Planning of the migration path
  - Creation of security concepts (according to BSI) with consideration of the DSGVO
  - o Creation of a PKI with HSM
  - Definition of processes and standards
  - Presentations of the concept

**Tools/Products** Ansible, Azure Cloud (AKS), CentOS, CI-Runner, Confluence,

Docker, draw.io, GitLab, Helm Chart, Hybrid cloud, Kubernetes, K3S, markdown, NFS, PKI, YubiHSM2, Terraform, UML, VMWare

# Development and support of a high performance CI/CD infrastructure tailored to the needs of the client

*Time period* 02/2020 - 04/2020

**Company** Basler AG (Hamburg)

*Industry* Manufacture of special cameras

**Team size** 2-6 people

**Role/Position** DevOps Engineer / Consultant

**Tasks** ● Recording and analysis of the requirements from project

teams

Analysis of performance problems in an jenkins build farm

Evaluation of improvement options and alternatives to the
aviiting leading build form

existing Jenkins build farm

Creation of a proof of concept with a multi-master BuildBot

setup in the Azure Cloud (AKS)

Creation of a decision template for the management

Creation of workshop documents with examples

• Integration and creation Linux agents for the Team

Foundation Server

Restructuring of Ansible Playbooks according to best

practices and expansion

Knowledge transfer by pair programming

**Tools/Products** Ansible, Photon OS, Jenkins, Team Foundation Server, Ubuntu,

Grafana, Prometheus, markdown, draw.io, UML, Docker,

Kubernetes, Terraform, Azure Cloud, AKS

#### Evaluation of OpenStack as service

*Time period* 10/2019 - 12/2019

**Company** Widas Technologie Services GmbH

*Industry* Banking and trade

**Team size** 1-3 people

**Role/Position** Senior System Engineer - DevOps / site reliability

**Tasks** ● Research of OpenStack providers

 Evaluation of OpenStack as s Service with a proof of concept (Rollout of a DC/OS Cluster with Ansible playbooks)

Tools/Products OpenStack, Ansible, DC/OS, MarkDown, Office365, GitLab,

CentOS Linux

#### Review of Ansible playbooks

*Time period* 10/2019 - 12/2019

**Company** Widas Technologie Services GmbH

*Industry* Banking and trade

**Team size** 1-4 people

**Role/Position** Senior System Engineer - DevOps / site reliability

**Tasks** • Reviews and expansion of existing Ansible Playbooks

Introduction of encryption of sensitive data in Playbooks

with Vault encryption

Tools/Products Ansible, Vault, GitLab, Docker, Nexus, CentOS Linux

#### Migration of a C++ server application

*Time period* 06/2019 - 09/2019

**Company** msg Systems AG

*Industry* Automotive

**Team size** 2-3 people

Role/Position Senior IT Consultant - applied technology research

**Tasks** ■ Migration of a legacy c++ server application from bare

metal to bare metal and from bare metal to virtual machine

 Evaluation of tools for builds and debugging over remote, with a proof of concept

• Support of customer communication on technical level.

• Troubleshooting of issus

#### Market analyses and evaluations of container orchestration tools

*Time period* 04/2019 - 09/2019

**Company** msg Systems AG

*Industry* Non-specific

**Team size** 1-3 people

**Role/Position** Senior IT Consultant - applied technology research

Tasks • Research, classification and presentation of Kubernetes

products from different suppliers and projects.

• This included attending a three-day training course: *Red* 

Hat OpenShift Administration I (DO280).

• Experiments with the internal private cloud and on

VirtualBox.

• Presentation the results via whitepaper, short movie and in

person.

Tools/Products Kubernetes, OpenShift, VirtualBox, Azure Cloud, CentOS Linux

#### Provisioning of project infrastructure based on Ansible

*Time period* 06/2019 - 09/2019

**Company** msg Systems AG

*Industry* Non-specific

**Team size** 1 people

**Role/Position** Senior IT Consultant - applied technology research

Tasks Analysis, conceptual design, proof of concept and presentation of

a provisioning of project infrastructure based on Ansible

playbooks.

**Tools/Products** Ansible, Bash, Docker, Reverse proxy, Private cloud, AWS,

Azure, Debian Linux

#### Further development of container based generic project infrastructure

*Time period* 01/2019 - 09/2019

**Company** msg Systems AG

*Industry* Non-specific

**Team size** 2-4 people

Role/Position Senior IT Consultant - applied technology research

**Tasks** • Management of transformation processes, troubleshooting,

customer support

• Reverse engineering of undocumented code and tools

Completion of documentation

Peer programming

**Tools/Products** Bash, Docker, Debian packaging, Deb repository, Docker registry,

Supervisor, Nginx, Debian Linux

#### Conversion of a Jenkins setup into the new pipeline functionality

*Time period* 02/2019 - 04/2019

**Company** msg Systems AG

*Industry* Automotive

**Team size** 1-4 people

**Role/Position** Senior IT Consultant - applied technology research

**Tasks** • Familiarized myself with the subject of Maven, Groovy,

declarative pipeline syntax and scripted pipeline syntax

Transferred knowledge to the team members.

Conversion of a Jenkins setup into the new pipeline

functionality

Tools/Products Jenkins, Groovy, Java, Maven, Payara, OpenShift, Bash

#### Reimplementation of a PKI in an IoT environment

*Time period* 07/2018 - 12/2018

**Company** noris network AG

**Industry** Automotive / IoT

**Team size** 6-9 people

**Role/Position** Senior IT System Engineer - agile operations / setup owner

**Tasks** • Familiarized myself with the subject of PKI and Kubernetes

 Consulting, presales, project planning, management of transformation processes in preparation for the conversion

to Kubernetes

Tools/Products EJBCA, HSM (Hardware security module), Kubernetes, Bastion

Host, CentOS Linux

# Reengineering of a PKI (Public Key Infrastructure) in an IoT (Internet of Things) environment

*Time period* 11/2017 - 12/2018

**Company** noris network AG

Industry Automotive / IoT

**Team size** 4-7 people

**Role/Position** Senior IT System Engineer - agile operations / setup owner

TasksResponsibility for reengineering and dokumentation of

legacy server setup with 100 machines

Implementation and documentation of standard operations

processes

Troubleshooting, analysis and monitoring of standards and

processes

Customer reports

Out-of-date Puppet instances replaced with Ansible

Second level support

Ansible, Puppet, VMware, EJBCA, RADIUS, Payara, ActivMQ,Foreman, Graylog, MariaDB Galera Cluster, Docker

swarm, CentOS Linux

#### Containerisation of portal application and microservices

*Time period* 08/2015 - 07/2017

**Company** meteocontrol GmbH

*Industry* Energy / IoT

**Team size** 2-6 people

**Role/Position** DevOps Engineer

Tasks ■ Internal applications packed in docker container

Evaluation of container orchestration tools

• Setting up an internal docker registry with Artifactory

Create an automated build and deployment process with

GitLab CI runner

Tools/Products PHP, JavaScript, GitLab CI Runner, Artifactory, DNS, Reverse

proxy, Floting IPs, NFS, Ansible, Keepalived, Docker Swarm,

OpenShift, Kubernetes, Docker, Puppet, Debian Linux

#### Implement an embedded build environment in Docker Container

*Time period* 10/2015 - 06/2016

**Company** meteocontrol GmbH

Industry Energy / IoT

**Team size** 1-2 people

**Role/Position** DevOps Engineer

**Tasks** ■ Analysis of incompletely documented C/C++ code, build

tools and build scripts

Documentation of interfaces and functionalities

Adaptation of build scripts

Creation of Dockerfiles

Automation of container builds

Presentation of results to team colleagues and heads of department

**Tools/Products** Atlassian Confluence, C/C++, Bash, Make, Eclipse, Ptxdist,

Debian, Artifactory, Docker, Jenkins, GitLab CI Runner,

Embedded Linux, Cross compiler, Debian Linux

#### Analyzing of legacy code

Time period 02/2015 - 06/2015

**MELOS GmbH** Company

Industry Health

Team size 1-4 people

Role/Position Developer

Tasks Analysis of partially 20 years old C/C++ code

Documentation of interfaces and functionalities

Creation of a REST concept

• Impl. of a WebClient with MVC-principle (with Python/Bottle)

Impl. of a REST-Services with Queue-Management and

concurrency (in Python/Bottle)

Impl. of a REST-capable backend process in C++ (with

Curl-Lib). Presentation of results

**Tools/Products** Bash, Python, Perl, Qt4, Qt5, C/C++, Bottle, Jenkins, Google Test,

REST, Atlassian Confluence, openSUSE

#### Implementation of a RPM-based fully automated rollout process

Time period

ATIX AG Company

Trade fair Industry

Team size 1-2 people

Role/Position Senior IT Consultant / Developer

Tasks Implementation of a RPM-based fully automated rollout

process for a shop system (Magento)

- Creation of the concept, RPM templates and automatic build scripts
- Setup and integration of server components
- Communication, coordination and agreement with customers and service partners
- Documentation. Execution of the test and acceptance process

Tools/Products CentOS Linux, RHEL, Jenkins, YUM, RPM, Bash, PHP, Apache,

MySQL, Mercurial, Magento

#### Introduction of a configuration management

*Time period* 01/2014 - 06/2014

**Company** ATIX AG

*Industry* Trade fair

**Team size** 1-2 people

**Role/Position** Senior IT Consultant / Developer

**Tasks** • Familiarized myself and evaluated in SaltStack.

Proof of concept

Implementation of SaltStack

Documentation and workshops carried out

Tools/Products SaltStack, CentOS, RHEL, Git, Apache, MySQL, iptables, sftp

# Webfrontend for a telephone system to display the employees in conversation

*Time period* 01/2014 - 06/2014

**Company** ATIX AG

*Industry* Non-specific

**Team size** 1 people

**Role/Position** Senior IT Consultant / Developer

**Tasks** • Familiarized myself with the subject of RubyOnRails

Analysis of the interfaces of the telephone system.

- Implementation and rollout of a webfrontent for a telephone system to display the employees in conversation
- Reimplementation with Node.js and Bootstrap (CSS-Lib).
- Using of a public interface of Deutsche Bahn to show next available train.

**Tools/Products** 

REST, Raspberry PI, RubyOnRails, Node.js, Bootstrap, JavaScript, Asterisk/Starface-API, Linux

# Automation and change management for a website

*Time period* 01/2011 - 08/2012

**Company** ATIX AG

*Industry* Non-specific

**Team size** 1 people

Role/Position IT Consultant / Developer

**Tasks** • Evaluation of possible solutions

Consulting and support for automation, deployment and configuration management

• Change management and setup support

Besides autodidactic preparation for the IHK exam as IT

specialist - application development (in german: "Fachinformatiker - Anwendungsentwicklung").

Tools/Products Zope, CentOS Linux, Plone, Piwik, MySQL, Apache, RPM

Package Manager, RPM / Deb Builds

# Technical article



### Linux-Magazin 04/2021

Title:

PKI-Workshop, Teil 3: PKI-Automatisierung per Ansible-Playbook

**URL**:

https://www.linux-magazin.de/ausgaben/2021/04/pki/

Year: 3/2021



#### Linux-Magazin 03/2021

Title:

PKI-Workshop, Teil 2: PKI mit Automatisierung und Infrastructure as Code

**URL**:

https://www.linux-magazin.de/ausgaben/2021/03/pki/

Year: 2/2021



### Linux-Magazin 02/2021

Title:

PKI-Workshop, Teil 1: Grundlagen der Public-Key-Infrastruktur

URL: https://www.linux-magazin.de/ausgaben/2021/02/pki-teil-1/

**Year:** 1/2012



### Entwickler Magazin 5.14

Title:

Webprogrammierung mit C++ - Welches Framework darf es sein?

**URL**:

https://entwickler.de/online/welches-framework-darf-es-sein-11461 9.html

Year: 5/2014



# Linux-Magazin 01/2014:

Title:

Webanwendungen in C++ mit Tntnet

**URL**:

http://www.linux-magazin.de/Ausgaben/2014/01/Tntnet

**Year:** 1/2014