Qualification Profile: Mark Fink - Python SoftwareEngineer / Performance Engineer

A. Personal Information:

Year of Birth: 1969 Citizenship: German

Professional Focus: Python Software Dev./ Performance Engineering/ Test Automation

Education: - Diploma Degree in Computer Science (UAS)

- Master of Business Administration (MBA)

B. Developer-Skills (Extract):

Cloud/Linux: - AWS CloudFormation, CodeDeploy, Lambda, API Gateway, Swagger

- Vagrant, Docker, Ansible

- Linux (Amazon Linux, Arch, Ubuntu, Cent OS)

- Jenkins Pipeline as Code, Travis CI

Programming - Python Languages: - Bash

- XML / JSON / HTML

- Javascript

Performance Tools: - JMeter

- Loadrunner

Certifications and 2017 AWS Certified Solution Architect Professional

Trainings: 2015 AWS Certified Solution Architect

2015 LPIC-1 Cerification Linux Professional Institute

2015 SUSE Certified Linux Administrator

2009 ISTQB Certified Tester

Experience: I am a full-stack engineer and performance engineer with 20 years of

experience. I have been working on large enterprise projects with some

of Europe's most distinguished companies.

Software Engineering:

As a software engineer, I provide services within private and public clouds. I like uncharted territory and problems that are hard to solve.

I love to: Advocate for, facilitate and create continuous integration culture and automate everything with the right tools!

My most recent projects focused on Python development. I have the technical development expertice from backend persistence layer to the restful webservice layer, to client side javascript and portable desktop apps.

Infrastructure-as-code unlocks the potential of cloud computing:

- * AWS cloud services: I automate serverless architecture deployments using AWS Lambda, API Gateway, Swagger and API blueprints
- * Scalable server stacks: Cloudformation, CodeDeploy, EC2, Docker

I also have practical development experience using cloud tools like Docker and Hashicorp Vagrant, and Packer in this setting.

As a toolsmith I provide automation tools and templates using Jenkins and Travis.CI to teams, so they can test, build, and deploy their services. I drive the adoption of pipeline-as-code. I have experience in coaching and supporting teams (from 5 up to 80 developers).

Performance Engineering:

Excellent working knowledge in Performance-Test-Life-Cycle for enterprise applications. I competently cover the full life cycle of design, preparation, and implementation of test scenarios, test scripts and utility functions for performance testing using LoadRunner, JMeter, TheGrinder, Neoload, and other available tools.

I support / execute testdata preparation and cleansing.

I perform root cause analysis to detect memory leaks and bottlenecks in servers, databases and enterprise applications. I support and propose resolutions for performance tuning.

From working in different settings, I have a lot of practical expertise in executing a performance test project from the start - including test infrastructure and defining a comprehensive performance plan which includes scope, performance requirements, approach, test deliverables, project deliverables, schedules, risk assessment, etc. My analysis and test reports support decision making for performance strategy and technology to use.

Team Skills:

Effective technical writing skills with hands on experience creating plans, documentation and status reports.

Excellent oral and written communication skills (German, English), committed, quick learner, result oriented, smart working with a quest to take on new challenges and to learn new technologies.

Dynamic team player, enthusiastic, and greatly motivated towards success and completion of projects. At the same time, highly capable of working independently.

C. Project Experience (Extract):

08/2022 – 02/2023 Customer: **Ubica Robotics**, Bremen & Remote

Title: Senior Software Engineer

Project: Fleet-Management-System for mobile Robots

Environment: Python3, Django, CoreOS, Grafana, ROS2, OAuth2, Gitlab

Greenfield: Requirement Analysis, Architecture, Implementation,

Integration, Security, Operation

Collect live data from 50 mobile robots and implemented tools for interactive perforance-analysis of nightly operations. Integrated apps into AAD for user and role management using

MSAL. Collect robot and infrastructure metrics using

prometheus. Running container loads on CoreOS. Automated

regression testing.

06/2019 – 01/2022 Customer: **adidas**, Remote

Title: Software Engineer

Project: FutureCraft CAD & engineering-design-tool for shoe upper

Environment: Python3, Numpy, QT/Pyside2, OpenGL System Redesign: Redesign, Refactoring, Test Automation

Refactored the existing Python script collection into a maintainable and portable desktop application used by shoe designers. Introduced a release process and automated regression testing. Adding versioned file format capabilities for design an configuration files. Implemented undo & redo capabilites, interactive design tools, metrics, data science & visualization tools, image importer, and integration into adidas

project workflow.

04/2018 – 05/2019 Customer: **Miltenyi Biotech**, Remote

Title: Software Engineer

Project: Fighting cancer with Python / Cell sorter app redesign

Environment: Linux, Python, QT

Legacy System Redesign: Redesign, Refactoring, Test Automation

Like a processing plant, a cell sorter involves complex components from different disciplines like chemical processes, optics, mechanics, hydro mechanics at nanometer scale. The "plant's" processes are controlled by a Python application. I was responsible for the complete redesign of the monolithic software into maintainable and testable packages and modules. After completion of the redesign I did most of the refactoring and introduced automated regression tests to the

project.

06/2016 – 03/2018 Customer: Pro7 Digital & Glomex GmbH, Munich & Remote

Title: Software Engineer with the SRE team

Project: Global Media Exchange; Fullstack Video Platform Environment: AWS, Linux, CloudFormation, Lambda, Rest-Services

Cloud: Python, Boto3, Docker, Ansible, Jenkins, DataDog, Grafana Refactoring and maintenance of custom cloud deployment tools for AWS Lambda, API Gateway, OpenAPI, Swagger, CloudFormation, CodeDeploy. Infrastructure-as-code and

Jenkins pipeline-as-code templates for AWS fullstack

microservices.

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12/2015 – 05/2016 Customer: **Uniserv**, Amsterdam

Title: Software Engineer Engineer with the DataHub Scrum team

Project: Master Data Management, CDH Data Hub

Environment: MongoDB, ElasticSearch, Soap- / Rest-Webservices, C# Cloud: Packer, Vagrant, Python, Bash, Jenkins 2.0, TheGrinder

Introduced infrastructure-as-code and Jenkins pipeline-as-code for automated regression testing and continuous performance

on AWS EC2.

06/2015 – 10/2015 Customer: **Toolineo.de**, Munich & Wuppertal

Title: Software Engineer

Project: Toolineo.de / Marketplace for craftsman tools

Environment: Java, Python, Soap- / Rest- Webservice, Solr, Hybris

Cloud: Python, Bash, Ansible, Puppet, Vagrant, Jenkins

Setup CI and test automation for automated regression testing

using RobotFramework, Selenium and SoapUI.

Infrastructure-as-code using Vagrant, Ansible + Puppet.

Setup Grafana Performance Metrics. Concept, implementation

and execution of performance tests for all marketplace

applications using TheGrinder.

03/2014 – 03/2015 Customer: **Payback GmbH** / Customer Reward Systems, Munich

Title: Test Engineer as member of onsite/architecture team

Project: Payback Global framework

Environment: Java, Python, Soap / Rest Webservice, Spring Batch

CI: Jenkins, SoapUI, Groovy, Ansible, Vagrant

Update test automation infrastructure and tests for

batch-file-, Soap-, and Rest- interfaces.

08/2013 – 02/2014 Customer: **Fiducia IT AG** / Private Banking, Munich

Title: Test Engineer as member of an agile development team

Project: JBF banking framework Environment: Java, Linux, Vaadin

CI: Jenkins. Selenium

Consulting, Update test automation infrastructure for Selenium

/ Webdriver tests.

07/2012 – 03/2013 Customer: **Kühne & Nagel** / Transport Logistics, Hamburg

Title: Test Engineer as part of an agile / Scrum team Project: Ecommerce transport app for SOHO customers

Environment: Java, Linux, Oracle 11g, GWT, Pentaho

CI: Fitnesse/Slim, Selenium, Jenkins

New test automation infrastructure, migration of the existing automated regression test suite, exploratory

testing, performance testing.

01/2012 – 06/2012 Customer: **Kühne & Nagel** / Transport Logistics, Hamburg

Title: Test Engineer as part of an agile development team Project: Wireless sensor network infrastructure and frontend

Environment: Java, Linux, Oracle 11g, AQ, JSP, Struts

CI: Fitnesse/Slim, Selenium, Jenkins, Python, JMeter, SoapUI

My involvement included implementation and maintenance of the automated regression test suite from scratch, exploratory testing, performance testing. We included testing tours, automation stories and defect processing into a Kanban workflow.

08/2009 – 11/2011 Customer: **Credit Suisse** / Banking, Zurich

Title: Performance Engineer within the technical testing team

Project: Banking applications

Environment: Java, Linux, (some .Net and C++) Performance: Loadrunner, TheGrinder, Python

I supported application teams through the whole

cycle of performance tests from initiation to go-live decision. During my time at Credit Suisse I teamed up with more than 50 application teams. Usually I worked with two to three teams in parallel. I was responsible for the whole performance test cycle

(plan, prepare, implement, execute, analyse, report).