Mohamed Mustapha Tahrioui

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SENIOR ENGINEER

Details

Bonn
Germany
4thel00z@gmail.com

NATIONALITY

Deutsch

PLACE OF BIRTH

Bonn

Skills

Python

Golang

JavaScript

Microservices

Kubernetes

Java

IAM

C/C++

Okta

Docker

Linux

Git

Amazon Web Services

SQL

Linux/Unix

Terraform

NoSQL

Kafka

Low Latency

DNS

IT Sec

Leadership

Prometheus

Kafka

Profile

My name is Mohamed M. Tahrioui, I am 30 years old and have over a decade of experience in software development in both consulting and product environments.

Additionally, I have experience in architectural design and leading technical and mixed product and service teams of medium size, with up to 25 members, most recently as a technical lead at a German-American SaaS startup.

My industry experience includes:

- Telecommunications (5 years)
- Omnichannel e-commerce (3 years)
- Logistics (1.5 years)
- GIS (1 year)
- Game development (1 year)

Work experience

Techlead, Newstore GmbH, Berlin/Boston - Remote

2022 — PRESENT

Technical Lead of the Routing Team

- Designed and led the development of a new routing engine, successfully acquiring two new clients and generating a combined Annual Recurring Revenue (ARR) of €500,000.
- Conducted multiple migrations and improved system stability and scalability, reducing failed orders by 50% and increasing throughput from 15 to 400 requests per second.
- Redesigned core routing logic, reducing support effort by 70%.
- Designed and implemented an AWS-based event orchestrator solution, migrating from a central event broker (RMQ), resulting in a 60% reduction in SEV-1 incidents.
- SOC-2 Officer: Led and executed the collection of compliance evidence.

Tech Stack: Python, Go, AWS, Terraform, GitLab, Kubernetes (EKS), Lambda, RDS, PostgreSQL, DynamoDB, EC2, ECR, IAM, OKTA SSO (OIDC provider), Rust, JavaScript, React, FastAPI, Kafka, ksqlDB, Redpanda, RabbitMQ, SQS, S3, SOC2/SOC-II Compliance, asyncio, Redis, Ansible

Teamlead, axxessio, Darmstadt

2017 — 2022

Tech Lead: Smart Speaker Core Component Architect

- Led a senior developer team in building a multi-assistant, multi-tenant core component across three hardware iterations, deployed to hundreds of thousands of customers.
- Focused on system-level design and integration
- **Design and shipping** of proper **dbus** policies streamlining it's adoption as main ipc channel
- **Fixing bugs pertaining to DECT handling** for connection to phone homebase
- **Review Bluetooth stack (Bluez 4/BlueZ 5) patches** to satisfy bluetooth certifications for multiple bluetooth profiles
- **Integrate services with delicate systemd lifecycle** (architecting certain holistic system states as systemd targets, like: factory-mode, ftu, regular-usage, etc.)
- **Shipped first time usage** protocol (bluetooth + http)
- **Designed and shipped** factory mode (TLS CSR request handling etc.)
- **Shipped** multi-tenant isolation for multi tenant Yocto-based build environment.

Tech Stack: Python, Go, C/C++ Yocto, dbus, DECT, bluetooth, http, TLS, etc.

Tech Lead: B2C Voicemail Assistant

- Design the architecture for an intelligent voicemail platform with **asyncio-based WebSocket communication**.
- Led the technical team through the MVP phase, optimizing performance and onboarding developers to in-house IVR systems.

Tech Stack: Rasa, Magenta IVR, Python, FastAPI, Websockets, Kubernetes, asyncio, Redis, Terraform, Azure, SQLAlchemy, Alembic.

Tech Lead: Microservice + NLU Ideation

- Delivered a social-watching WhatsApp chatbot using a custom NLU platform for over 100,000 MagentaTV customers, integrating with low-level messaging protocols and IVR systems.

Tech Stack: Python, Rasa, Magenta IVR, Python, Kubernetes.

Internal: Team Lead

- Disciplinary lead for a team of 15+ developers, fostering hacker culture and developer knowledge through workshops and training sessions.
- Overseeing internal projects, like:
    - Mobile voice chatbot for automotive damage assessment with **custom audio processing pipelines**.
    - Resume data extraction app served via **libhttp**

Tech Stack: Android, Go

Tech Lead: MagentaTV

- **Designed and shipped** integration to MagentaTV
- Utilized **C/C++**, **dbus IPC**, **UPnP protocols**, and **cross-compilation toolchains** for low-level testing and system calibration.

Tech Stack: C/C++, Python, Go, UPnP, Linux, Yocto, bitbake, make, cmake, Cross compilation

Teamlead, WhereGroup, Bonn

2016 − 2017

Team Lead: GIS Project for the Baden-Württemberg Government (LINA)

Led the development of a WebGIS client/backend for managing agricultural land.

Tech Stack: JavaScript, PHP, Symfony, jQuery, PostGIS, PostgreSQL, pgRouting, Git, GitHub.

Team Lead: Deutsche Bahn - Real Estate Management

Delivered a WebGIS client/backend for real estate management for Deutsche Bahn.

Tech Stack: JavaScript, PHP, Symfony, jQuery, PostGIS, PostgreSQL, pgRouting, Git, GitHub.

Software Developer, Various, Bonn/Kassel

2014 − 2016

Software Developer: DHL (External)

Implemented RTL label printing support for the DHL label engine while ensuring the performance of the "hot path" (40 million print requests/day).

Tech Stack: Java, Spring, SVG, Groovy, Maven, Maven Central, Nexus, BiDi, Unicode (UTF-8, UTF-16, UTF-32), Native printer formats, LP2, Barcodes, etc.

Android Developer: iOS Boutique

Ported various apps from iOS to Android, achieving an average of 500,000+ downloads over 8 months.

Tech Stack: Android, Java, Audio streaming and processing, RTP, FFT (Fast Fourier Transformation), Android NDK, CMake, Gradle.

Education

Bachelor of Science, Rheinische Friedrich-Wilhelms Universität Bonn, Bonn

AUGUST 2012 — SEPTEMBER 2016

IT Security