

# Utku Özdemir

SOFTWARE ENGINEER

Berlin, Germany

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## Summary

I am a software and infrastructure engineer living in Berlin with over 10 years of hands-on development, operations & team-leading experience. I enjoy building robust, scalable software and taking ownership of the whole lifecycle.

During the last few years, my main focus area is infrastructure, particularly Kubernetes, containerization and building private cloud solutions. I am also very interested in the Go programming language and the cloud-native ecosystem. I am the creator and the maintainer of a few open-source projects in those areas.

I have contributions in various open-source projects both voluntarily and as part of my work.

I also have extensive experience and up-to-date knowledge on building backend software using JVM languages, mainly Java and Kotlin.

## Experience

### Sidero Labs

Berlin, Germany - Remote

SENIOR SOFTWARE ENGINEER

Jun. 2022 - Sep. 2022

- Developed **features and fixes** to the open-source operating system **Talos Linux** designed specifically for Kubernetes clusters.
- Contributed to the tooling and libraries that support Talos such as **cosi-project**.
- **Technologies used:** Golang, Linux Kernel, Kubernetes, Containerd, Etcd, OpenPGP, kubeadm.

### KI Challenge.rs GmbH

Berlin, Germany - Remote

SENIOR DEVOPS ENGINEER

Jan. 2022 - May. 2022

- Worked on the greenfield cloud infrastructure of an **e-commerce portal** for an automotive corporation.

TEAM LEAD & SENIOR INFRASTRUCTURE ENGINEER

Nov. 2020 - Dec. 2021

- **Project:** **cloudmobility** - Daimler AG

### MobiLab Solutions GmbH

Berlin, Germany

TEAM LEAD & SENIOR INFRASTRUCTURE ENGINEER

Jul. 2018 - May 2020

- **Project:** **cloudmobility** - Daimler AG
- Lead the **Platform Infrastructure** team who was responsible of the compute, storage and network domains of the Kubernetes and Ceph based multi-tenant cloud platform.
- Lead the architectural decision processes on compute, storage and network components.
- Communicated with the other team leads on defining the API contracts between the teams.
- Wrote design proposals and decision logs for the platform infrastructure.
- Established & documented coding guidelines for the Ansible playbook repositories.
- Implemented Ansible playbooks to bring up multi-tenant, production-grade Kubernetes clusters.
- Created Helm charts for the management toolset of the Kubernetes clusters.
- **Technologies used:** Kubernetes (kubeadm, CRDs and custom controllers, PodSecurityPolicies, RBAC, Admission Webhooks, dynamic persistence provisioners), Containerd, Docker, Helm, Istio, Cilium, Nginx Ingress, Ansible, Go, HAProxy, Keepalived, CEPH, MAAS, BGP, KVM, gVisor, AppArmor, bare-metal servers.

SYSTEM & CLOUD ADMINISTRATOR

May 2018 - May 2020

- Migrated various applications that are running on Azure to Google Cloud, to managed Kubernetes clusters and other managed GCP resources.
- Identity Access Management of the cloud resources on Azure and Google Cloud.

SENIOR KUBERNETES & DEVOPS CONSULTANT

Mar. 2018 - Apr. 2018

- **Project:** **Mercedes pay** - Daimler AG
- Worked on the payment provider system as a technical Kubernetes and devops consultant.
- Assisted the team with managing their deployments on Kubernetes.
- Set up and configured the monitoring and logging components, database backups, Helm charts, build pipelines.
- **Technologies used:** Kubernetes (with no-root policy and other restrictions, NetworkPolicies, Ingresses), Helm, EFK, Prometheus, Grafana, Alert-Manager, PostgreSQL, Traefik.

ENGINEERING LEAD

Jan. 2018 - May 2020

- Worked on establishing the engineering practices in the company while collaborating with the other leads. Documenting these practices.
- Worked on defining the recruitment process, preparing technical challenges and conducting technical interviews.

BRANCH MANAGER

Oct. 2017 - May 2020

- Recruitment for the Berlin office
- Budget planning
- People & resource management

- **Project:** Master Data Management Platform - Metro AG
- Lead a team on building a Master Data Management platform that allowed product attribute validation and enrichment.
- Developed microservices using Kotlin & Spring Boot that run on Kubernetes.
- Designed and implemented a fuzzy search with autocomplete on all master data items using Apache Solr.
- Designed the data model for Cassandra to ensure that the data is evenly distributed and fetched optimally.
- Implemented on-the-fly XML<->JSON transformation for integration with the legacy systems.
- **Technologies used:** Java 8, REST, Kotlin, Spring Boot, Hystrix, Zuul, Cassandra, Solr, Docker, microservices, Kubernetes, Jenkins.

## BACKEND ENGINEER

Oct. 2015 - Feb. 2017

- **Project:** Article Cache - Metro AG
- Worked on a central master data storage system that has acted as a data streaming platform.
- Implemented a persistent queue on a distributed filesystem using Java concurrency API and file locks.
- Implemented a rotating XML storage to circumvent the restrictions of HDFS.
- **Technologies used:** Java, GPFS, WebLogic, JAX-RS, Oracle DB
- **Project:** Up to Growth! - Metro AG
- Worked on the backend of a mobile application that aims to increase productivity of meetings.
- **Technologies used:** Java, Spring, Azure SQL, Azure Blob Storage.

**Turkish Armed Forces**

Ankara, Turkey

## SOFTWARE DEVELOPER

Mar. 2015 - Sep. 2015

- Completed the compulsory military service.
- Developed small scoped desktop apps to assist various departments.
- Provided limited IT support.

**Imona Technologies Ltd.**

Istanbul, Turkey

## BACKEND ENGINEER

Jan. 2013 - Mar. 2015

- **Project:** ImonaCloud Platform
- Worked on the development of an app-PaaS consists of an in-browser cloud application development platform & marketplace.
- Was responsible for installation, preparation of environment (Java Runtime, Application Server, Web Server, Load-Balancing, Database, Firewall, Forwarding etc.) and maintenance of more than 15 Linux (Ubuntu) servers.
- Was responsible for installation of continuous integration tools, build automation and deployments.
- **Technologies used:** Java, Vaadin, Hibernate, Tomcat, Ubuntu, MVEL.

**Vodafone Turkey**

Istanbul, Turkey

## INTERN

Jul. 2011 - Feb. 2012

- Worked on the Data Warehouse, Data Quality department.

**IBM Turkey**

Istanbul, Turkey

## INTERN

Jul. 2010

- Worked with Java EE Technologies: JSP, JSF.

## Open Source

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<b>Talos Linux</b>	Modern Linux distribution built for Kubernetes (work)
<b>pv-migrate</b>	CLI tool to easily migrate Kubernetes persistent volumes (creator & maintainer)
<b>nvidia_gpu_exporter</b>	Nvidia GPU exporter for prometheus using nvidia-smi binary (creator & maintainer)
<b>helm-charts</b>	A set of Helm charts for the applications I use (creator & maintainer)
<b>ansible-role-nebula</b>	Ansible role to install Nebula overlay VPN (creator & maintainer)
	See my <a href="#">GitHub profile</a> for more

## Education

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**Galatasaray University**

Istanbul, Turkey

## B.S. IN COMPUTER ENGINEERING

Sep. 2007 - Jun. 2012

- Degree: 3 of 35
- Graduation Thesis : Development of a Blood Pre-transfusion System for Turkey

## Skills

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<b>Infrastructure</b>	Docker, Kubernetes, Helm, Rancher, Vagrant, Terraform, Ansible, Azure, GCP, Ceph
<b>Backend</b>	Spring Boot, Hibernate, Maven, Gradle, REST APIs
<b>Programming Languages</b>	Java, Kotlin, Python, Go
<b>Databases</b>	Postgres, MySQL, SQL Azure, Cassandra, Solr
<b>Spoken Languages</b>	Turkish: Native, English: Advanced, German: Basic

## Certifications

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- 2019 **Google**, Google Cloud Certified Professional Cloud Architect
- 2015 **Oracle**, Oracle Certified Professional, Java SE 7 Programmer
- 2015 **Linux Professional Institute**, Linux Professional Institute Certified I - LPIC-1