# Paul Heymann

Staff Engineer and Manager

#### About

Seasoned Staff Engineer and Engineering Manager delivering solutions in complex and dynamic environments.

#### Hard Skills

Golang - AWS - Kotlin -Scala - Software Architecture - Distributed Systems -Observability - Operations -GCP

#### Soft Skills

Technical Leadership - Lean Delivery Management -Stakeholder Management -People Management -Communication

#### <u>Languages</u>

English - German

#### Interests

Family - Endurance training - Western classical books - Writing

#### Education

I am a trained Aerospace Engineer (B.Sc.) and Computer Scientist (B.Sc., Consensus protocols).

#### Contact

- contact@paulheymann.de
- LinkedIn
- GitHub (pheymann)

#### Work Experience

#### <u>tado°</u>

#### **Software Engineering Manager**

Home Energy Management (product)

Now December 2024

Kotlin - AWS -Angular Leading a cross-functional team of 15 people across software, design, and embedded engineering. We work on Heat Pump integrations, energy tariffs, and EV charging.

#### **Software Engineering Manager**

Dynamic Energy Tariffs (product); 1 yr 6 mo

Bootstrapped a small cross-functional team. I led high impact initiatives integrating energy providers into our systems.

#### Shopify

#### 7 mo Mai 2023 November 2022

GCP - Cloudflare -Golang -Kubernetes

#### **Staff Engineer**

Global CDN Infrastructure (platform); 7 mo (layoffs)

Identifying high impact initiatives and accountable for team delivery. The Assets team is responsible for Shopify's global CDN infrastructure.

#### <u>MOIA</u>

#### 1 yr 9 mo Oktober 2022 February 2021

AWS - Scala -Golang - Akka -Kubernetes

#### **Technical Lead**

Trip Experience (product); 9 mo

Technical leadership of a cross-functional team of 16 people. We built the user experience from the pick up to the drop off of a user. Domains I covered included backend, native, and embedded engineering.

#### **Software Engineering Manager**

Trip Execution (platform); 1 yr

Led the team building the central fleet and trip orchestration platform.

### XING

4 yr 9 mo January 2021 May 2016

GraphQL - Scala - Kubernetes

#### **Senior Software Engineer**

Global GraphQL API Gateway (platform)

I was responsible for XING's GraphQL gateway, managed stakeholders across the organization, led projects, and developed the technical roadmap for that service.

#### **Data Engineer**

Central Data Science Team (platform)

# Selected Projects and Initiatives

## tado°

home energy management (heat pumps, energy tariffs, EV charging)

Bootstrapping a small product team, integrating energy tariffs

Kotlin - AWS - Angular

Joining tado°, I was tasked to bootstrap a small cross-functional product team (5 people) to integrate dynamic energy tariffs into tado° 's ecosystem. I hired 2 engineers and defined the delivery processes and tech stack (Kotlin, AWS) to then deliver a first release within 6 months in time for a press release at IFA.

I also prepared tado° 's legacy system to allow for a new customer base from energy providers by adapting the authentication and authorization flows tightly bound to Smart Thermostat products and users. The most significant change was to move authorization from being coupled with the Smart Thermostat service to an event-driven architecture, allowing different services to handle and react to authorization events.

# **Shopify**

eCommerce platform

#### Global CDN infrastructure

Golang - GCP - K8S - Cloudflare

In my time at Shopify, I worked on their global CDN infrastructure, which meant maintaining cache states across Cloudflare's network and dealing with tens of millions of requests per minute of incoming traffic. Those requests that didn't hit the caches, still > 1 million per minute, ended up in our K8S clusters hosting up to 1,500 instances of our asset transformation service. Operations could range from storing and retrieving objects from object storage to format, size, resolution, or other kinds of asset transformations on for example, images or GIFs.

# **MOIA**

Ride pooling service

Bootstrapping a large product team to service regular trips and autonomous vehicles Golang - AWS

As the Tech Lead I was tasked to merge 2 teams into one large cross-functional product team (16 people) focusing on user trip execution (every digital interaction from pickup to drop off) with our regular vehicle fleet and an autonomous vehicle provider.

I adjusted delivery processes to a small feature squad approach so that each sub-group of the team could focus on one aspect at a time while allowing everyone to have the full context by rotating topics over time.

I also extended the group of backend engineers and defined the tech stack (Golang) architecture (serverless) to allow us to reuse existing expertise in the company and integrate quickly.

## **XING**

Germany's largest professional social network

#### Building the central GraphQL API gateway

Scala - K8S - GraphQL

At XING, Germany's largest professional social network with >20 million users, I joined a team of Senior Engineers to build XING's central GraphQL API gateway. We consolidated all ~200 backend service APIs into it and eventually most of the network's traffic was going through our gateway. It meant dealing with different protocols, schemas, SLAs, etc. but doing it in a way that is transparent to the client.

This service had to process >200,000 RPMs and translate those into >800,000 RPMs into our backend infrastructure (on average). At the same time, latency added by interpreting GraphQL queries and aggregating responses had to be minimal. For the median request, we added <100ms for query resolution which still decreased over all latency because multiple client requests could be merged into one.