Ahmad Alhour

Munich, Germany ✳ a.z.alhour@gmail.com ✳ aalhour.com ✳ github.com/aalhour

Summary

Staff+ engineer with 15+ years of experience designing resilient, high-throughput backend systems and distributed data infrastructure. Proven track record leading cross-functional platform initiatives, contributing to open-source (Apache HBase & turso), and shipping production systems at global scale (Shopify, HubSpot & Grafana Labs).

Work Experience

Grafana Labs   *Sep 2025 - Present*
Staff Software Engineer   *Munich, Germany*

- Working on Grafana Cloud: Managed observability solution based on OSS stack (mimir, loki, beyla) at scale.
- *Tech Stack: Go, jsonnet, Prometheus, OpenTelemetry, eBPF, Kubernetes, & AWS*

HubSpot   *Nov 2023 - Sep 2025*
Senior Software Engineer II (Data Infrastructure, Apache HBase)   *Munich, Germany*

- Drive deployment, scaling, and operational reliability of HBase at HubSpot (200+ Apache HBase clusters across 5 production data centers) on top of AWS, docker, and kubernetes.
- Contribute Apache HBase upstream with bugfixes, features, and reviews, directly influencing the evolution of a globally adopted open-source distributed database.
- Designed and implemented automatic memory tuning for HBase JVM processes, significantly reducing OOM incidents by 90% and improving cluster-level resilience under unpredictable load.
- Introduced chaos testing to validate HBase releases against production-like workloads, reducing pre-deployment verification cycles from several days to less than 1 day and catching correctness regressions early.
- Worked on HubSpot's initiative to scale it's infra to 5 data centers in 2024 (see: announcement)
- *Tech Stack: Java, HBase, Hadoop, Kubernetes, puppet & AWS*

Shopify   *Jan 2022 - Sep 2023*
Staff Software Engineer   *Munich, Germany*

- Led the end-to-end redesign of Shop's merchant eligibility system, shifting from daily batch processing to a real-time, event-driven architecture using Kafka and CDC — reducing merchant & product indexing latency from 48h → 32s for 2M+ merchants and 2B+ products.
- Scaled the Product Understanding ML pipeline to support 140M classification updates/day (up from 100K), by optimizing Redis, MySQL, and Sidekiq worker architecture across services.
- Led cross-functional delivery of Shop Promise across 3 teams — defined the GraphQL API contract, backend service architecture, and mobile app integration, enabling launch to 100M+ users on the Shop app (see: blog)
- Directed technical readiness for BFCM 2022 across 7 teams (40 engineers), designing load test plans, scalability strategies, and failover scenarios — successfully supported 8M merchants and $7B+ GMV (see: blog)
- Mentored team on writing high-quality system design proposals, setting up observability best practices, and conducting effective incident response reviews under real-world load conditions.
- *Full-stack development using RubyOnRails, Sidekiq, Python, Spark & Flink, Kafka, Vitess & GCP*

AutoScout24 (AS24)   *Jan 2020 - Jan 2022*
Engineering Manager   *Munich, Germany*

- Managed an 8-person senior engineering team, leading trust and safety initiatives for Europe's largest car marketplace with a focus on fraud reduction and user protection at scale.
- Spearheaded the phased migration of AS24's legacy identity system to Scala + AWS + Okta; led architecture, stakeholder alignment, and project execution — enabling scalable auth for 20M+ users and increasing signup conversion by 37%.
- Re-architected car listings flow with integrated ML classification and fraud detection, reducing fraudulent listings by 40%, recovering 95% of lost leads, and driving a 33% increase in car sales volume.
- Mentored senior engineers on architectural decision-making, project risk management, and stakeholder communication — helping build a high-trust, delivery-focused engineering culture.

KI labs   *Mar 2019 - Jan 2020*
Data Engineering Lead   *Munich, Germany*

- Led a team of 6 data engineers across project planning, architecture, implementation & delivery
- Architected data platforms for Daimler, Lufthansa, and JTI using modern stacks (Databricks, Snowflake, Delta Lake, GCP/AWS) to support scalable analytics and ML use cases.
- Helped launch kaos, an open-source Python-based platform for automating reproducible ML deployments on AWS and GCP using Pachyderm, Terraform, Docker, and Kubernetes: github.com/KI-labs/kaos
- *Full-stack development using Python, Java, Apache Spark, Apache Storm, Docker, Kubernetes, AWS & GCP*

TrustYou   *Jan 2016 - Mar 2019*
Senior Software Engineer (Tech Lead)   *Munich, Germany*

- Led the Data Platform team responsible for ingesting and processing 7M+ hotel reviews/week, building scalable pipelines and observability tools for internal and external analytics.
- Drove expansion of TrustYou's data platform to support review data from Glassdoor and Indeed, enabling diversification of analytics products beyond hospitality.
- Led the Connect team, an API SaaS platform for integrating hotel partners with TrustYou
- Designed and launched API platforms for integrating major OTAs like Booking.com, TripAdvisor, and Google Places — scaling hotel inventory 10x from 40K → 400K properties.
- *Full-stack involvement using Python, Java, PostgreSQL, Docker, Kubernetes, Hadoop, Apache Spark & Kafka*

CCC, D1G, CommunitiesTech, Freelancing   *Feb 2007 - Dec 2015*
Software Engineer   *Multiple locations*

- Several software engineering roles at different companies and locations. For more information, please refer to my LinkedIn profile: linkedin.com/in/aalhour

Education

B.Sc. Degree   *Princess Sumaya University for Technology*
Computer Science   *Sep 2007 - Jun 2011*

- *Capstone project: Natural Language Processing & Sentiment Analysis applications for Arabic Twitter.*
- *Participated in the global IEEEXtreme programming competition (9th place worldwide).*
- *Participated in the regional ACM ICPC programming competition.*

Open Source

Open-Source

- **turso**: An open-source in-process SQL database, compatible with SQLite, written in Rust. List of commits and contributions: github.com/tursodatabase/turso/commits?author=aalhour
- **Apache HBase**: An open-source distributed database alternative to Google Bigtable, I shipped a few features and bugfixes: github.com/apache/hbase/commits?author=aalhour
- **kaos**: A platform for simplifying Machine Learning deployments on the cloud (AWS & GCP) based on Python, Pachyderm, Terraform, Docker & Kubernetes: github.com/KI-labs/kaos

Educational

- Built multiple databases, compilers, assemblers and educational tools for low-level systems (MIPS, Hack, DSLs, etc.): aalhour.com/projects

Technical Skills

Languages	Go, Python, Ruby, Java, C#, C/C++, JavaScript
Infra & Data	HBase, Kafka, Spark, Redis, Vitess, PostgreSQL, MySQL
Cloud & DevOps	AWS, GCP, Kubernetes, Terraform, Docker, Puppet
Domains	Distributed Systems, Data Infra, Observability, Open Source