

# Pavlo Fedyna

Senior Software Engineer

Hamburg Metropolitan Area, Germany

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## Summary

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Software engineer with 15+ years of experience building scalable, high-traffic services and data processing pipelines on AWS.

Currently focused on search systems, hybrid/semantic search, and LLM-powered conversational interfaces at one of Germany's largest retailers.

Core stack spans Java, Rust, Kotlin and Python on AWS, with a growing focus on Rust for performance-critical services.

Clean code and XP advocate with a user-centric mindset.

## Experience

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### Senior Software Engineer at Otto&Co

*Oct 2021 - Present*

Architecting and developing the search platform for Germany's largest online retailer.

Maintaining search retrieval via high-performance Solr cluster.

Developing and maintaining high-throughput index data ingestion pipeline for Solr.

Built and maintained a hybrid search core service combining lexical and semantic search.

Rewrote the hybrid search core in Rust, significantly improving performance.

Migrated infrastructure from CloudFormation to Terraform and CI/CD from Jenkins to Github Actions.

Optimized AWS runtime costs.

Own observability and resilience stack.

Developed an LLM-backed Query Intent service.

Developed agentic conversational search assistant (storefront AI chatbot)

Prototyped voice-to-voice conversational search.

Java · Kotlin · Rust · Python · Spring · Spring WebFlux · Helidon 4 · Solr · Kafka · Hazelcast · AWS · AWS CDK · Docker · Terraform · Github Actions · Jenkins · Packer · Grafana · Prometheus · Mimir · Langchain4j

### Tech Lead at Caregonexx

*Oct 2020 - Sep 2021*

Led a team of 5 engineers, collaborating with the PO on quarterly OKRs.

Refined user and system requirements before feeding them into the development pipeline.

Designed and developed a SaaS solution for fleet and shipment management.

Built a tour cost and time optimization service.

Java · TypeScript · SQL · Spring · React · AWS · Docker · PostgreSQL

### Senior Software Engineer at Caregonexx

*Aug 2020 - Oct 2020*

Implemented and maintained an internal customer-facing solution for fleet and shipment management.

Integrated GPS providers for real-time fleet tracking.

Introduced TDD, pair programming, and CI/CD practices to the team.

Java · TypeScript · SQL · Spring · React · AWS · Docker · PostgreSQL

## Senior Software Engineer at Zalando Marketing Services

Feb 2018 - Aug 2020

Built the reporting solution for Zalando's ad management self-service platform.  
Rewrote the reporting and analytics pipeline, migrating to cloud  
and achieving significant reduction in daily operational costs (10x).  
Implemented high-load data stream consumers powering the analytical processing pipeline.  
Developed an analytics module for the marketplace platform.  
Established 24/7 on-call support infrastructure for the team.  
Introduced TDD, pair programming, and CI/CD practices.  
Enabled stakeholder access to data through self-service sharing solutions.

Python · Java · Scala · SQL · Spring · Spark · Airflow · Databricks · AWS · Docker · Kubernetes · PostgreSQL · GraphQL · React · Jenkins

## Senior Software Engineer at EOS Technology Solutions

Aug 2017 - Feb 2018

Implemented and maintained a client-data management system.  
Refactored and added test coverage to legacy parts of the system.  
Optimized the ORM layer to improve user experience.  
Introduced BDD and automated web testing.

Java · SQL · JavaScript · Spring · Hibernate · React · Selenium · Cucumber · Kafka · Jenkins

## Lead Software Engineer at Smaato Inc.

Mar 2017 - Aug 2017

Led development of the B2B client portal, delivering the MVP on time  
despite staffing constraints and high management pressure.  
Led development of the ad delivery auction management system.  
Built a plugin framework for the auction system, enabling sales engineers  
to onboard advertisers without developer involvement.

Java · SQL · JavaScript · Python · React · Selenium · Docker · AWS · Jenkins

## Software Engineer at Smaato Inc.

Oct 2014 - Mar 2017

Implemented and maintained a high-load, distributed ad delivery auction management system.  
Refactored the auction handling algorithm, improving CPU performance by 20%  
and reducing cluster size.  
Migrated and rewrote several legacy applications and components.

Java · SQL · JavaScript · Spring · Hibernate · Docker · AWS · Jenkins · Packer · Kafka

## Software Engineer at Edvantis Inc.

Mar 2012 - Sep 2014

Delivered a variety of projects for US and European customers.

Java · SQL · JavaScript · Spring · AWS

## Junior Software Engineer at Lvivsoft Inc.

Jul 2011 - Mar 2012

Implemented and maintained a social media platform.  
Deployed and tested application backend and frontend.

Java · SQL · JavaScript · Spring · Solr · AWS

## Skills

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**Languages:** Java, Kotlin, Python, Rust, TypeScript, JavaScript, SQL

**Frameworks:** Spring, Spring WebFlux, Helidon 4, React, GraphQL, Langchain4j

**Infrastructure:** AWS, AWS CDK, Docker, Kubernetes, Terraform, Kafka, Hazelcast, Github Actions, Jenkins, Packer  
**Observability:** Grafana, Prometheus, Mimir  
**Data:** Solr, PostgreSQL, Spark, Airflow, Databricks

## Education

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**B.S in Applied Linguistics**  
State University 'Lviv Polytechnics'

*Aug 2006 - Aug 2010*

## Interests

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**Rust on Embedded Systems** — Exploring bare-metal programming and IoT applications with Rust's safety guarantees

**Game Development** — Building games as a creative outlet and to explore real-time systems architecture

**Homelab Infrastructure** — Running a self-hosted Proxmox cluster with Kubernetes for learning and experimentation

## Work Preferences

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**Employment:** Full-time  
**Arrangements:** Hybrid, Remote (preferred)  
**Travel:** Open to limited travel as needed