

Pavlo Fedyna

Senior Software Engineer

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Summary

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

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 structure 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

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

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

Aug 2006 - Aug 2010

Interests

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

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