Igor Zarvanskyi

Software Architect & Engineering Leader | Agentic AI Engineering

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SUMMARY

Software architect and engineering leader with 20 years of experience since 2007, building enterprise platforms for global brands including ABB, Trek Bicycles, Swagelok and Clarks, leading teams of up to 25 and setting architecture and processes for a ~100-person technology department. At ABB, set the AI adoption strategy and moved a ~19-person team to agentic engineering with Claude Code, doubling delivery with the same team. Author of the book Laminar Software Design.

Core expertise: Agentic engineering, AI adoption, AI software factories, Software architecture, Technology strategy, Engineering leadership, Team building

WORK EXPERIENCE

Zaelab

~8 years, Spain (Remote)

Software Architect & Engineering Manager | Agentic AI, Microservices @ ABB *Feb 2025 to Present*

- Directed a ~19-person team and moved it to agentic engineering, increasing delivery by 100% with the same team size.
- Built an AI software factory: Claude Code skills, AI review of every PR, MCP to Azure DevOps and Datadog.
- Generated ~400 end-to-end Playwright tests from Gherkin specifications with AI agents.
- Architected B2B e-commerce migration from SAP Hybris to Java/Spring Boot microservices on AWS, with no feature freeze.
- Defined the whole architecture in ADRs, authoring or approving every decision from service split to SAP integration.
- Standardized every service as a hexagonal modular monolith, enforced by Spring Modulith and ArchUnit tests.
- Set biweekly releases with an 80% coverage gate and segregation of duties for audits, releasing nearly every week.

Software Architect | SAP Commerce Cloud, Java @ Simpson Strong-Tie *Jun 2024 to Mar 2025*

- Designed Offline Ordering architecture for headless SAP Commerce, keeping ordering available during ERP downtimes.
- Integrated SAP Commerce with promotions in ERP.
- Refactored the add-to-cart flow and optimized batch add-to-cart, reducing its execution time by 90%.
- Tuned flexible search queries for users and B2B units hierarchy, reducing execution time from 8s to 0.5s.

Software Architect & Engineering Manager | SAP Commerce Cloud, Java @ Swagelok *Dec 2023 to May 2024*

- Directed a 6-person SAP Commerce team, owning its architecture, delivery and engineering processes.
- Architected a combined Solr search experience by storing multiple index types in the same index.
- Facilitated seamless migration to SAP Commerce Cloud 2211 with a zero-downtime release.
- Established ticket analysis, prioritization and assignment processes, reducing leadership team involvement to 0.
- Introduced technical documentation processes.
- Adopted a SAP Commerce patch framework, removing 100% of manual steps from the release process.
- Doubled Ant build efficiency, cutting CI pipeline execution time by 20%.

Software Architect & Engineering Manager | SAP Commerce, Java @ Trek Bicycles *Nov 2021 to Dec 2023*

- Set the architecture and engineering processes for a technology department of ~100 people.
- Directed a ~25-person team, interviewing candidates and growing engineers, delivering SAP Commerce projects on time.
- Architected payment provider integration framework, reducing integration time per provider by 50%.
- Centralized pricing customizations within an OOTB service layer, reducing full price import time by 60%.
- Guided seamless migration from SAP Commerce Cloud 2011 to 2211, leading to 0 data loss.
- Optimized B2B checkout process and cart model, speeding up page load by 80% for carts with large item lists.
- Restructured B2C order fulfillment process, reducing its duration by 30%.

Technical Lead | SAP Commerce, Java @ Trek Bicycles *Jul 2020 to Nov 2021*

- Provided technical leadership and mentorship to a team of 9 SAP Commerce developers.

- Supervised SAP Commerce developers across design, development and implementation stages of features.
- Drove project planning, daily meetings, code reviews and deadline management, achieving 95% adherence to timelines.
- Performed migration from SAP Hybris 6.6 to SAP Commerce 2011, ensuring a smooth transition with minimal downtime.
- Pioneered the adoption of TDD methodology within the Java team, decreasing regression defects by 40%.
- Built a robust CI/CD pipeline with SonarQube analysis, enhancing code quality and deployment processes.

Senior Software Engineer | SAP Commerce, Java @ Trek Bicycles *Sep 2019 to Jul 2020*

- Reduced PDP page load time from 6 seconds to 250 milliseconds.
- Cut SAP Hybris startup time from 10 minutes to 4 minutes.
- Accelerated SAP Hybris Ant build time, reducing it from 5 minutes to 2 minutes.
- Reworked Solr product indexing process, resulting in a 70% speedup in Solr index time.

Optaros by MRM//McCann

~1 year, Ukraine (Remote)

Technical Lead | SAP Hybris, Java @ Clarks *Jul 2018 to Jul 2019*

- Led a team of 6 SAP Hybris developers, interviewing candidates, to deliver a multi-country B2B solution.
- Shaped the system architecture, ensuring scalability and efficiency in line with business objectives.
- Advised internal and external stakeholders on leveraging SAP Hybris solutions to align with business objectives.
- Implemented master data exchange between SAP Hybris and SAP ERP via Datahub and RFC, with 100% data accuracy.
- Created Jenkins CI/CD pipeline scripts with test runs and static code analysis.
- Engineered user segmentation for products and CMS components based on the personalization module.

Everything5pounds.com

~3 years, Ukraine (On-Site)

Technical Lead | SAP Hybris, Java *Jul 2016 to Jun 2018*

- Owned architecture, engineering processes and technical roadmap for the whole ~25-person technology department.
- Hired and built a proficient team of 6 SAP Hybris developers under direct supervision.
- Devised estimates and plans for the evolution roadmap of the product, aligning with strategic business objectives.
- Led the move of the deployment system to Docker/Kubernetes, achieving 100% uptime.
- Owned PCI DSS compliance of the platform, completing the self-assessment questionnaire.
- Introduced TDD and a Jenkins CI/CD pipeline, reducing regression defects by 80%.
- Conducted thorough code reviews and peer assessments to uphold development standards and enhance team proficiency.

Software Engineer | SAP Hybris, Java *Mar 2015 to Jun 2016*

- Designed order and consignment processes, reducing overselling and order returns by 95%.
- Conducted smooth migrations from SAP Hybris version 5.3 to 6.5, leading to releases with 0 downtime.
- Developed a robust Java product feed generation system for Google Merchant, Shopify, Jumia and others.
- Implemented session storage functionality in SAP Hybris platform.
- Owned Java memory and performance tuning of the platform.

JayaDigital

~2 years, Ukraine (On-Site)

Software Engineer | PHP *Jan 2013 to Feb 2015*

- Fixed bugs and developed new features on the Magento platform for multiple clients.
- Built a money exchange website on Symfony2 from scratch, integrating 8 payment platforms, e.g. Bitcoin and WebMoney.

Freelance

~8 years, Ukraine (Remote)

Software Engineer | PHP *Oct 2007 to Dec 2015*

- Independently delivered 50+ Drupal websites, covering backend and frontend, with 100% customer satisfaction rate.

EDUCATION

- **NTUU "Kyiv Polytechnic Institute"** ***Ukraine***
  - PhD Candidate in Mathematical Methods of System Analysis
  - MS and BS degrees in Applied Mathematics
- **Dresden University of Technology** ***Germany***
  - European Summer School in Industrial Mathematics and Modelling

CERTIFICATIONS

- Claude Certified Architect - Professional (Anthropic)
- Software Design and Architecture Specialization (University of Alberta, Coursera)
- Reactive Architecture: Advanced (Lightbend)
- Professional Scrum Product Owner I (Scrum.org)
- SAP Commerce Cloud 6.7 Developer (SAP)
- SAP Hybris Commerce 6.2 (SAP)

PUBLICATIONS

- **Laminar Software Design: Foundations of High-Quality Code** (2026) - Book on software design and architecture for engineers and technical leaders, grounded in cognitive science. It covers code quality, module and service boundaries, and the design decisions that keep large systems easy to change.
- **clutcher.dev** - Technical blog about software design, agentic engineering and SAP Commerce, with reusable source code.

OPEN SOURCE AND TOOLS

- **Better Highlights** - JetBrains IDE plugin with 1M+ downloads: highlights, class links in comments, cognitive complexity.
- **laminar-skills** - Multi-agent Claude Code system that reviews code by the book's ideas, covered by LLM evals.
- **book-writing-skills** - Agentic Claude Code workflow for research, fact-checking and writing the book, with LLM evals.
- **spring-modulith-module-archunit** - Maven Central library enforcing hexagonal architecture in Spring Modulith modules.
- **spring-security-exception-handler** - Maven Central library for Spring Security exception responses in REST and GraphQL.
- **spring-security-graphql-requiresscopes** - Maven Central library for GraphQL Federation @requiresScopes checks.
- **github.com/clutcher** - Engineering metrics and release automation for Jira and Azure DevOps, and more open source.