ALEKSEI PIKALOV

Software Architect & Technical Lead

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SUMMARY

Software architect and technical lead with 20+ years across software development, system integration and architecture. I work directly with distributed engineering teams to turn business requirements into system designs and working software: service boundaries, APIs, data models, design reviews and hands-on prototypes. Most recently I independently designed and built an internal AI agent orchestration platform that is now used daily across several departments. Working language: English (German B1).

KEY SKILLS

Architecture: software & solution architecture, system design, distributed systems, microservices, event-driven architecture, domain-driven design

Integration & APIs: API design (REST/OpenAPI), system integration, workflow orchestration and process automation (Camunda BPM, BPMN)

Cloud & Platforms: AWS, GCP, Kubernetes/OpenShift, CI/CD, Java/Spring Boot microservice platforms

AI Engineering: AI agents and agent harnesses, tool integration, browser control, agentic workflows, reusable skills

Leadership: technical leadership of distributed teams, SAFe and Scrum, mentoring, aligning engineering with product and business

EXPERIENCE

Solution Architect | Telefónica Germany

Jun 2024 – Present

Munich · service orchestration, workflow automation and AI-assisted engineering

AI agent platform for engineering

- Independently initiated, designed and built an **internal AI agent orchestration platform**: an orchestration layer on top of existing agent harnesses that connects agents to company knowledge, ~20 engineering systems and reusable skills, and lets them work in web applications through browser control to carry out multi-step tasks.
- Grew it from automating architecture work to daily use across **several departments and functions** (architecture, business analysis, network planning), with **45 reusable skills**, 11 of them built by users themselves.
- Use cases include system analysis, interface and data-model comparisons, cross-system consistency checks, planning support and engineering documentation.

Service orchestration & network automation

- Define solution architecture for end-to-end service orchestration and workflow automation across multi-vendor systems (telecom: 5G network slicing, OSS).
- Align API contracts, data models and dependencies with delivery teams and technology partners, and guide implementation.
- Beyond the architect role, acted as **product owner**: assembled the delivery team and set up its agile delivery model (SAFe/Scrum: backlog, planning and review cadence).

Domain Architect | Deutsche Telekom

Sep 2022 – Jun 2024

Munich · order management and fulfillment in Germany's largest fiber rollout program

- Owned the architecture of the order fulfillment domain: a high-volume, end-to-end order flow from sales capture through provisioning in downstream systems to customer activation.
- Worked directly with **8 development teams** on service boundaries, API contracts, data models and design reviews; resolved cross-team integration issues.
- Designed the domain's microservice architecture (Java/Spring Boot, REST APIs): service decomposition, API-first contracts and process orchestration with Camunda BPM for integrations with third-party and network systems.
- Represented the domain in SAFe PI Planning, aligning technical dependencies and roadmap with product management; promoted CI/CD and cloud-native practices and mentored engineers.

Tech context: Java/Spring Boot microservices, Kubernetes/OpenShift, AWS, Camunda BPM, REST/OpenAPI, CI/CD

Solutions Architect | Deutsche Telekom Oct 2015 – Sep 2022

Fiber rollout program, from its early stage

- Designed early architecture for the program's order automation: integration patterns, BPM practice with Camunda and microservice standards that the platform later grew on.
- Acted as the technical bridge between business stakeholders and remote development teams: translated requirements into designs and guided implementation, working in English.

Solution Architect | YOTA (mobile operator) Sep 2013 – Oct 2015

- Designed a greenfield IT platform that scaled **from 0 to 1.5M customers** within the first year (J2EE, TIBCO ESB, SOAP web services; telecom standards eTOM/SID).
- Automated CRM and B2B processes to absorb exponential growth without proportional team growth; coordinated delivery across vendors and in-house development teams.
- Established a model-first architecture practice (Sparx EA) and led architecture reviews from requirements through integration and acceptance testing.

Software Architect & Team Lead | Giesecke+Devrient Jul 2010 – Sep 2013

- Led a team of 3–4 engineers building banknote processing software for central banks: architecture, planning, estimates and delivery; Scrum Master.
- Designed and prototyped core system components and owned requirements from product owner discussions to detailed specifications.

Lead Software Engineer | Veeam Software Dec 2008 – Jul 2010

- Developed cross-platform Java monitoring components integrating VMware vSphere with HP Operations Manager; the product later evolved into Veeam ONE.

Earlier roles | Alcatel-Lucent · Reksoft 2004 – 2008

- Software Architect, Alcatel-Lucent: greenfield OSS/BSS integration layer for Microsoft Mediaroom IPTV, deployed for operators incl. Wind, SingTel and Portugal Telecom (.NET, C#, SQL Server).
- Software Developer, Reksoft: components for the Saxo Bank online trading platform (.NET, ASP.NET, WinForms).

SIDE PROJECTS

Freelance architecture work alongside full-time employment (2015 – 2022): system design, process automation, technology selection and guiding development teams through delivery.

- **Logistics ERP**: order management and shipment tracking platform for an international freight forwarder.
- **Fintech factoring platform**: automated financial services for the partner ecosystem of a major oil company.

EDUCATION & CERTIFICATIONS

Engineer's Degree (Diplom) in Computer Science, Saint Petersburg State Marine Technical University 1999 – 2005

Google Professional Cloud Architect (2022 – 2024) · AWS Certified Solutions Architect – Associate (2022 – 2025) · TOGAF 9 (2017)

LANGUAGES

English – full professional (working language) · **German** – B1 (telc), improving · **Russian** – native