

# Nikolay Konovalov

## Senior Software Engineer

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### Work experience

#### Senior Software Engineer

##### Codility

— Owned security-critical identity and access domains for 25+ months across a legacy B2B SaaS platform, including AuthN/AuthZ, SAML, RBAC/ABAC, and CSP hardening; addressed 20+ audit-driven findings across all severity levels, supported ~200 auth/access endpoints and flows, and became the **solo continuity owner for 15+ months** after the original team rolled off.

— Co-led delivery of an **enterprise permissions redesign** for a 15+ year-old monolith, helping ship an MVP in ~6 months and later becoming a primary owner for production bugs, follow-up fixes, and operational continuity after most of the original team rolled off.

— Owned critical-path registration, verification, login, and token lifecycle logic for **ARR-impacting payment-linked flows**, contributing to a customer-facing initiative with measurable ARR impact over 2 years and shipping production changes in roughly 2 weeks.

— Turned a fragile, high-risk account-merge workflow with 10 years of legacy complexity into an enforceable engineering system by adding **CI guardrails for schema drift**, preventing silent regressions as the data model evolves.

— Built **LLM-assisted engineering tooling** that connected Jira, observability, code search, and GitLab workflows to speed up debugging and investigation across tickets, logs, and code, helping shape ideas that later evolved into **Coherence**.

**Stack:** *Python, Django, FastAPI, PostgreSQL, AWS, Terraform, Authentication, Authorization, IAM, SAML, OAuth, OpenTelemetry*

#### Senior Software Engineer

##### RE Partners / Stash.com

— Achieved significant improvements in user acquisition metrics by improving the **web onboarding flow**:

- Increased first platform deposit by **11%**
- Decreased referral cost by **32%**
- Boosted promo redemptions by **35%**

— Improved request traceability, logging, and monitoring across an event-driven architecture consisting of **7+ team-owned microservices**, reducing time to identify and resolve issues.

— Built a scalable event aggregation service for Kafka messaging, maintaining an **99.9%+ SLO for 6 months**.

— Drove team adoption of **commit standards, documentation, debt removal, and bug-reporting hygiene** to improve velocity and maintainability.

**Stack:** *AWS, CircleCI, CI/CD, DataDog, Docker, JavaScript, Kubernetes, Kafka, Kotlin, Node.js, PostgreSQL, React, Redis, Ruby/Rails, Scala, Sentry, Terraform*

#### Senior Software Engineer

##### Amitree

— Built a custom CI/CD pipeline based on GitLab Auto DevOps and a self-hosted Kubernetes cluster as a proof of concept for migrating from Heroku and **reducing hosting costs by 50%**.

— Dockerized the application monolith into **6 services plus job workers**.

— Proposed and helped implement a one-step UAT flow with Review Apps, resulting in **20% higher velocity and 0 monthly master reverts**.

**Stack:** *AWS, Docker, Ember.js, Google API, Heroku, MailChimp, Mixpanel, PostgreSQL, Redis, Ruby/Rails, Sidekiq, Stripe, Twilio*

#### Software Developer

##### True & Co.

— Led **cross-functional technical delivery** for an e-commerce project, guiding 3 frontend engineers and coordinating with ~15 people across backend, DevOps, engineering leadership, design, and marketing.

— Shaped **core architecture for Rails + Vue/Nuxt**, covering Nuxt.js frontend structure, JSON:API serialization, and OAuth 2.0/JWT authentication.

— Resolved performance regressions causing **up to 80% slowdown** in a mobile-heavy e-commerce storefront by optimizing SQL queries, caching layers, CDN/HTTP/2 delivery, SSR behavior, and JavaScript bundle loading.

— Resolved a critical Nuxt.js SSR production incident caused by request-scoped API authentication state being cached in a shared Node.js singleton after a JS→TS migration; **restored per-user request isolation** and shipped a production fix within 20 hours.

**Stack:** *Ruby/Rails, Vue.js, Nuxt.js, JSON:API, OAuth 2.0/JWT, MySQL, Redis, Sidekiq, Docker, Kubernetes, GKE, Google Cloud, Sentry, Rollbar*

#### Self-employed

##### Independent Software Developer

— Built an open-source e-commerce MVP in **3 weeks** using Rails, Vue.js, Docker, and PayPal payments; published **front-end** and **back-end** repositories on GitHub.

— Transitioned from PHP/Laravel to Ruby/Rails through **self-directed full-stack product development**.

#### Software Developer

##### Edukey Education Ltd

— Developed and launched paid cross-platform safeguarding software used by **350,000+ teachers and 4 million students** in the UK and US, receiving strong end-user feedback.

— Identified inefficient bug tracker usage and introduced **practical issue-reporting standards**, improving turnaround time for common issues by 15%.

— Reduced development/production environment provisioning time **from 8–16 hours to ~15 minutes** using Vagrant-based automation.

**Stack:** *CakePHP, Mailgun, MySQL, PHP, Vagrant, Vue.js, Webpack*

#### Web Developer

##### RXA Technology LLC

— Owned maintenance and UX improvements across **several legacy web projects**, improving maintainability, performance, and delivery speed.

— Reduced turnaround time for critical bug fixes **from ~8 hours to 1.5–2 hours** by adding regression tests around fragile legacy flows.

— Built a secure Stripe-based subscription payment flow for a product used by **500+ users**, integrating Stripe API/webhooks, structured error logging, and Mailgun alerts.

— Improved engineering quality through **code reviews, CI, and TDD** practices.

**Stack:** *CodeIgniter, Laravel, Mailgun, MySQL, PHP, TypeScript, Vue.js, Webpack, jQuery*

#### Web Developer

##### Ahead Technology

— Served as the **primary contributor and technical owner** for custom Moodle LMS plugins, focusing on maintainability, documentation, and long-term extensibility.

— Helped the client launch **two months earlier** by rapidly prototyping reusable Moodle blocks and modules.

#### Technical Support Software Engineer

##### Open Technologies

— Led **QA, release testing, and support** for a Moodle-based open-source education platform.

— Owned final release checks for new features and translated **recurring customer issues into engineering fixes**.

— Mentored **5 junior developers**.

### Summary

Senior Software Engineer with **10+ years** of experience across SaaS, identity/access, payments, security-critical systems, legacy modernization, and full-stack product engineering. Strong focus on production ownership, cross-functional delivery, and **making legacy systems safer to change**.

### Languages

Commercial experience / years

- **JavaScript/TypeScript** / 12
- **Ruby** / 6
- **Python** / 3
- Kotlin/Scala / 2
- PHP / 5

Side-project / fast ramp-up

- *Rust · Elixir · Clojure · Go · Lua*

### Frameworks

Commercial experience / years:

- **Ruby on Rails** / 6
- **React.js/Next.js** / 6
- **Django/FastAPI** / 3
- Node.js / 6
- Vue.js/Nuxt.js / 4

### How I build software

- [The Twelve-Factor App](#)
- [The Joel Test](#)
- [Strong code-review culture](#)
- [OpenCode / agentic workflows](#)
- [Coherence / spec-to-evidence](#)

### Selected work

- [Codility](#) / [Flexible User Roles](#)
- [Stash](#) / [Web onboarding](#)
- [Amitree](#) / [Folio](#)
- [True&Co](#) / [E-commerce platform](#)
- [Edukey](#) / [Safeguarding module](#)